ATHLETIC JOURNAL

Vol. XXVII, No. 7 March, 1947

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Defensive Team Play
H. S. DeGroat

Progress and Essentials in the Development of Broad Jumpers
T. E. Jones

Revival of Amateur Baseball
Lloyd Messersmith

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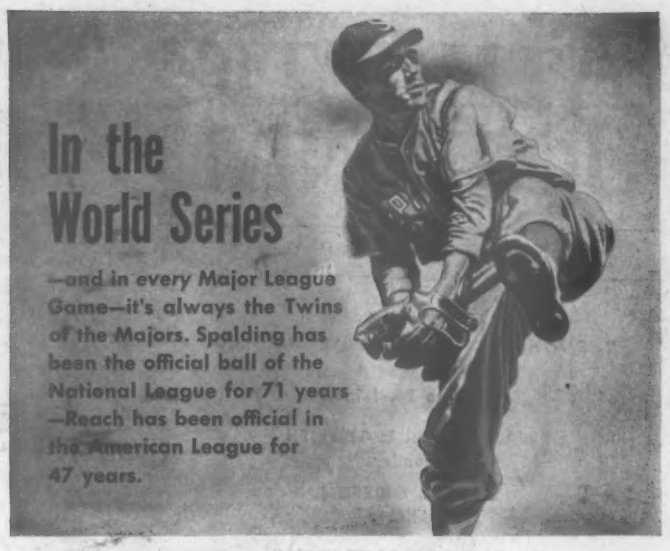

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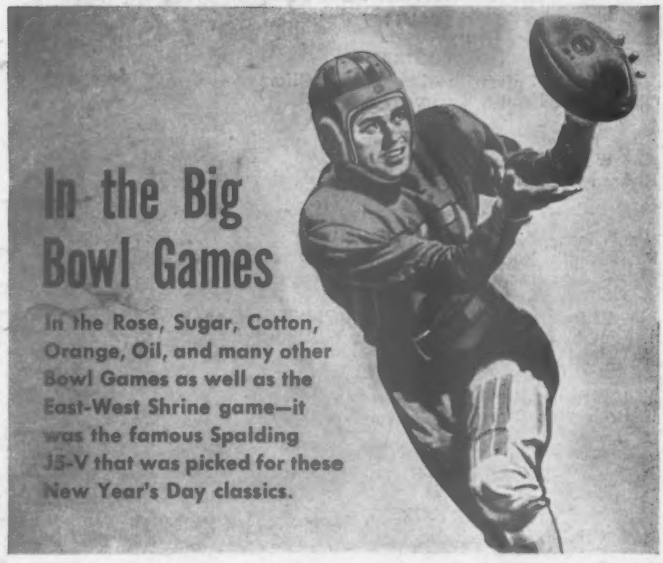

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Cy Johnson pitching, Bob Keely catching on the opening play of the 1947 training season of the Boston Braves.

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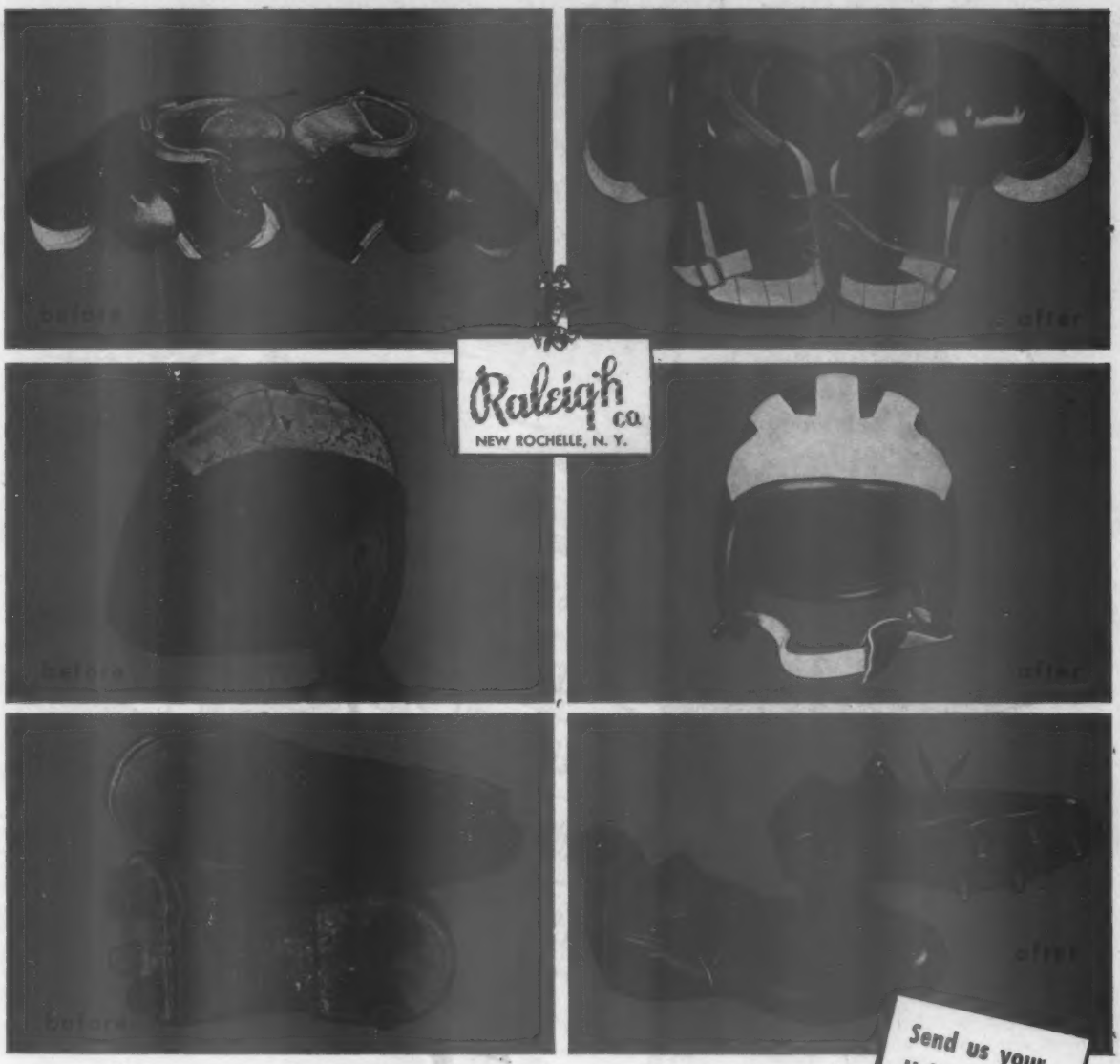

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from here and there

WE HAVE just returned from New York and the Sporting Goods Show where an all-time high of 300 exhibitors and some 3,000 dealers were present. After eliminating the fishing tackle manufacturers and fly by night athletic concerns we settled down to discussing the equipment situation with the recognized and well-established concerns. The consensus was that equipment is still going to be scarce, with clothing and shoes probably the most critical. The prices on all equipment were high, but for quality merchandise, they were not out of line with the increased production costs. Equipment should be ordered immediately for fall and next winter's delivery . . . Dealers were present from all over the country, Alaska, Hawaii, Puerto Rico, Canada and Europe, all attempting to get equipment to fill the needs of the schools in their localities.

• • •

THE program for the twenty-fifth Michigan State Relays carried a list of fifty-one track coaches with more than twenty-five years service. The combined years of coaching totaled 1677. William Hayward of Oregon is the dean of track coaches with fifty-two years . . . Tom Keane of Syracuse with forty-one years' service was honorary referee while Tom Jones with a like number was referee . . . Dad Butler who has retired from active coaching was present as were the following members of the Quarter Century Club, George Gauthier, Ohio Wesleyan; Ward Haylett, Kansas State; C. M. Hewitt, Bradley; Frank Hill, Northwestern; Dave Holmes, Wayne; Clyde Littlefield, Texas; Ned Merriam, Chicago; Mike Ryan, Wyoming; and Karl Schlademan of Michigan State. Four Michigan high school coaches have more than twenty-five years service, "Pop" Churm of Grand Rapids, Ernst Wuesthoff of Detroit Danby, Orval Henney of Wyandotte Roosevelt, and A. E. Stoddard of Kalamazoo Central . . . John Moakley who retired at Cornell holds the record for service at one school with forty-seven years. Who said track wasn't a stable sport!

• • •

JOHN WIATRAK, former assistant at Mount Carmel High School in Chicago becomes head coach at St. Mel High School in the same city . . . Dave Rankin, popular young track coach at Purdue has built plastic high jump and pole vault standards which are lighted inside. Next year Dave is planning to install a lighted plastic curb for the track . . . Last year there were 160 graduates of the American Legion Junior Baseball Program playing in the major leagues . . . The Harry Gill Company of Champaign, Illinois will have a limited number of bamboo poles this year, the first since 1941 . . . According to H. E. Schurgast, export manager of MacGregor Goldsmith, baseball is now on an even footing with soccer as the Mexican national game . . . Adolph Rupp's Kentucky Wildcats have hit an amazing 31.2 per cent of their shots in the first twenty-two games.

• • •

BILL BINGHAM, chairman of the National Collegiate Football Rules Committee has added to the committee two representatives selected from the fourteen states, where the high schools use the college rules. H. W. Emswiler, Ohio Commissioner and Lee Anderson, Oklahoma Commissioner were selected . . . Brown University, long a power in intercollegiate wrestling, is reviving the sport after a war-time lapse. Ralph Anderton, former Brown wrestling star will handle the mat men at his alma mater . . . Gerald Donnelly, athletic director and head football coach at Glens Falls, New York resigned to become director of physical education of the New Rochelle, New York, school system . . . In a first-round contest (?) of the Marion, Iowa county basketball tournament Melcher High led Swan High School of Knoxville 53-2 at the half. As the account goes, the scoring pace quickened in the second half with Melcher scoring 67 and Swan 3.

• • •

OF INTEREST to all Eastern coaches, should be Atlantic City's First Annual Football Clinic to be held in Convention Hall, April 1, 2 and 3. Clark Shaughnessy is directing the clinic and the staff will include Frank Leahy, Sid Luckman, Vic Lindskog, Wilbur Moore and Joe Stydahar. It goes without mentioning that the T will be the center of attention . . . For Michigan coaches the Seventh Annual River Rouge Indoor Track Meet will be held at Yost Fieldhouse, Ann Arbor, April 19 . . . "Vee" Green who resigned after fourteen years as football coach at Drake University has taken a position as Iowa

(Continued on page 46)

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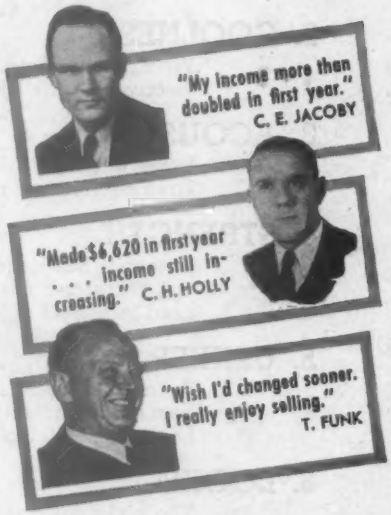
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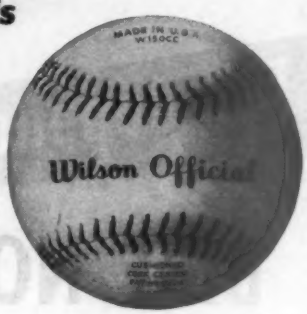

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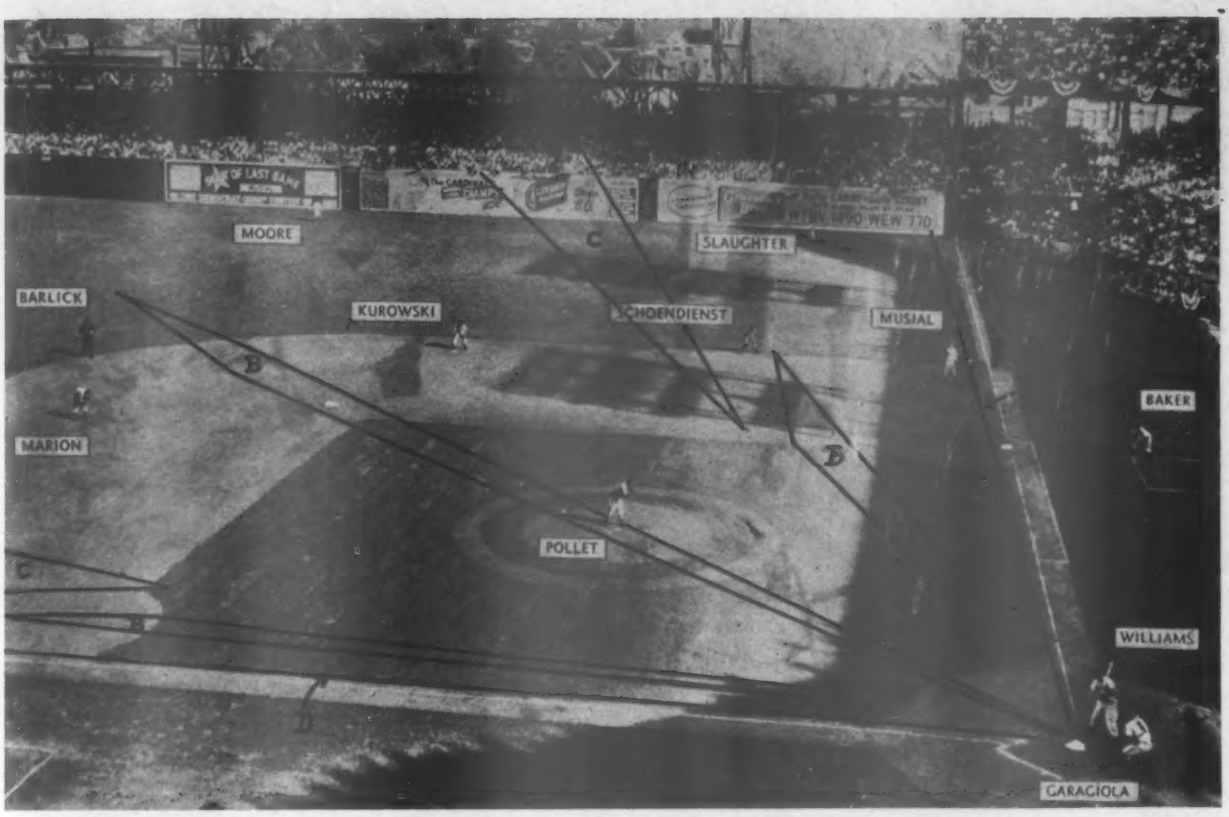


The Williams Shift: With long-ball hitter, Ted Williams of the Boston Red Sox, batting in the third inning at Sportsman's Park, St. Louis, Missouri, October 6, in the first game of the World Series, the St. Louis Cards' infield is shifted sharply to the right. Third baseman, Whitey Kurowski, has shifted to the right of second in normal second-base position. Marty Marion remains at his shortstop spot; second baseman, Red Schoendienst, is moved over closer to Stan Musial at first. Cards' pitcher is Howie Pollet; catcher is Joe Garagiola. Right fielder, Slaughter, and center fielder, Moore, are deep and to the right. In the above picture take note that Schoendienst has been placed in the spot which is usually uncovered by the normal infield play, thus he is cutting down William's chances to a minimum. With Moore shifting over to his left, the home run groove in right field has been cut to a minimum.

Defensive Team Play

By H. S. DeGroat

Director Town and School Health, Physical Education and Recreation, Newtown, Connecticut

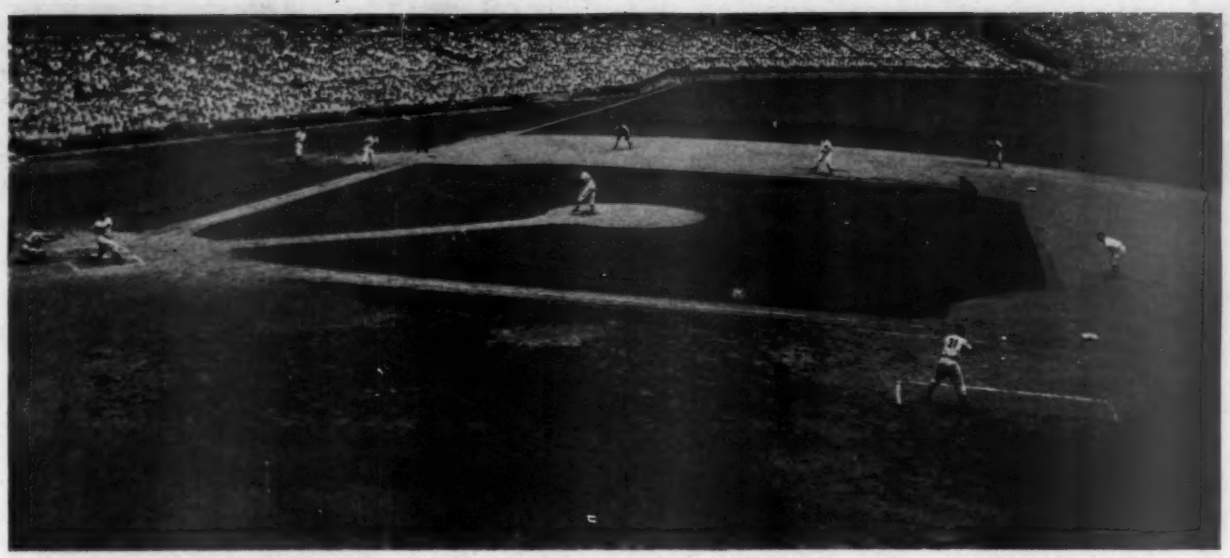
AT OUR request, because of many inquiries regarding Dr. Berry's book, now out of print, H. S. DeGroat has written the accompanying article. Mr. DeGroat, formerly of Springfield College, where he was a pupil of Dr. Berry and later took over his coaching duties, is now director of town and school health, physical education and recreation at Newtown, Connecticut. During the war, as specialist in physical education, he organized the army swimming program at the Officers' Training School, Miami Beach, in 1942 and the conditioning program at the A.A.F. Atlantic City in July 1942. He is president-elect of the Connecticut Association of Health, Physical Education and Recreation for 1947.

IN A BOOK which has a title *Baseball Notes for Coaches and Players*, Dr. Elmer Berry gathered together a fund of information about baseball that is invaluable to baseball coaches and players. He summarized much of the material that had been written up to that date of 1916. He put this information in his book in the form of notes or short sentences in outline form. This book has been out of print for a long time but the material in it is well worth reviewing.

It was in Springfield, Massachusetts, while coaching the Springfield College team that Dr. Berry wrote his book. His excellent performance in writing this book was matched by his excellent coaching record. In 1927 he turned his coaching post over to one of his former pupils, the author of this article. He was given a leave of absence to work with the National Recreation Association and later to head up a branch of Springfield College that was established at Geneva, Switzerland, to spread the theory of physical education and recreation to leaders of Europe. He is now retired, living at Vida, Oregon.

Dr. Berry states that *defensive team play*, although used extensively in major league baseball was very little used by amateur teams at that time. My observation is that this is still true today.

With the short seasons that face both high-school and college-baseball coached teams, it is a difficult problem for any coach to establish an elaborate system of team defense. By the time the coach has polished up the skills of his players at bat and in the field, and selected the better players, the season games are at hand. Then, too, the modern style of education with its heavy demands upon the students allows the players only a limited time to devote to baseball. I well remember the college player who stated that he did not care to assume the duties of a player-coach for his team at the time when some were advocating that the coach sit in the bleachers and let the boys play the game.



Three Yankees edge away from their bases in this general view of Yankee Stadium, August 11, as catcher, Aaron Robinson, slams a foul on a pitch by Micky Harris in the first inning of the first game of the Boston-New York double header. First baseman, Tommy Henrich, hovers near third as center fielder, Joe Di Maggio, takes a lead from second, and left fielder, Charlie Keller, stands off first. Robinson was subsequently walked, forcing in Henrich for the first Yankee run. Here we see the infield playing deep. It is early game time so the infield plays deep to cover all possible territory and to try for a double play. The offense is hitting straightaway at such a time. In late-game innings with the score close, the infield would undoubtedly be playing in to shut off the tying or winning run at home plate.

He stated that he had only so much time to devote to baseball and he wished to get as much enjoyment out of it as possible and the added responsibility of coaching the team would take much of it away from him or any other player who might attempt to direct the play.

It is the exceptional coach that has any system of defensive team play beyond that which will take care of the following:

1. Shifting of players according to type of batter, right or left.
2. Shifting of defense according to type of pitch.
3. Defensive tactics to catch runners caught between bases.
4. Defensive tactics to catch runners off base.
5. Defensive tactics to break up singles, hit to the various outfields, with one or more runners on base.

Defensive tactics to break up special plays such as the double-delayed steals, the squeeze play, the hit-and-run plays and others require many hours of practice. With two or more games to be played each week, the coach of the amateur team has a job on his hands if he gets his boys even to be confident at bat and fairly proficient at fielding the ball. Straightaway hitting and an occasional bunt are about all that are seen in the amateur field unless the team has a coach who has a system established and has been coaching his group over a stretch of seasons.

In the April 1946 issue* of this publication, *Defensive Baseball Tactics* covered the following situations:

1. Run-down of player trapped between bases.
2. Single to outfield with runner on second.
3. Catching a runner off second.
4. Breaking up the double delayed steal of second and home.
5. Making a double out if the runner on third is trapped when attempting to score on an infield grounder.
6. Defense against the bunt being attempted with runners on first and second.

*A few copies of this issue are available.

Geometry of Baseball

For the American Magazine in 1910 and 1911, Hugh S. Fullerton wrote a series of articles. *The Inside Game* in the May 1910 issue contains an excellent description of defensive play. Parts of these articles and the diagrams in them, Dr. Berry reproduced in his book under the heading Geometry of Baseball. This explains the references to Fullerton and Berry that will be made in this article.

I do not recall reading anything of the geometry of baseball or of hearing anyone talk of it but Dr. Berry outlines it as follows:

1. Speed of hit balls on the ground. The average of fifty in three games was 110 feet in 1 3/20 seconds.
2. Distance of players from home. First baseman 90 feet with runner on, 102 feet without. Second baseman 128 feet. Third baseman 96 feet. Shortstop 130 feet, playing "middling deep."
3. Grooves for safe hits. Five infield grooves where average grounder is safe. First base line 1½ feet wide, widens in outfield. Between first and second 7½ feet wide. Over second base 7½ feet wide. Between shortstop and third, 8½ feet wide; ball goes faster here. Third base line, 1½ feet wide. Four outfield grooves. two bunt spots where bunts roll safe. Two drag hits—slow hit balls to second baseman or shortstop.

I would like to point out that the drag hit line seems to be about seventeen feet either side of the pitcher. A pitcher expecting a bunt sometimes comes off the rubber too fast and a drag bunt will be overrun by him if laid in that area. This same ball is too far in for the first and third basemen to field and too slow for the second and shortstop to field and get to first ahead of the runner.

The startling shift of the St. Louis Cardinals against the left-handed batting of Ted Williams last October in the World's Championship is an example of major league defensive tactics and when examined, it has a scientific basis according to Berry's and Fullerton's geometry of baseball.

In the illustration Page 9, A is the area where bunts land as safe hits; B—Infield grooves where ground balls are usually hits; C—Home run grooves. D—First and third base grooves, also home run grooves.

The calculations are made on the basis of the velocity of balls traveling at the rate of one and a half seconds for one hundred feet and on the basis that the speed of players is six seconds for fifty yards.

Using again the Williams Shift illustration, we see mapped off the area that an infield can cover in fielding balls of equal speed. Fullerton in the "American Magazine" calculated this distance to be on the basis of twenty feet to the right. The infielder can move in about eleven feet on such a ball, but can drop back only about five feet and safely handle the same ball. He can travel twenty-two feet to the right and slightly backward and handle the ball while to his left the best he can do is nineteen feet. See the diagram below for details. The whole area diagrammed here changes whenever the infielder moves forward or backward, according to game conditions. If back, the area can become greater. If closer to the batter his area is smaller due to the speed of the ball.

Conclusions from the Geometry of Baseball

Berry outlines his conclusions as follows:

1. Twenty-six and one half feet out of 180 feet unguarded, that is, one ball in every 6 4/25 hit on the ground should be safe.

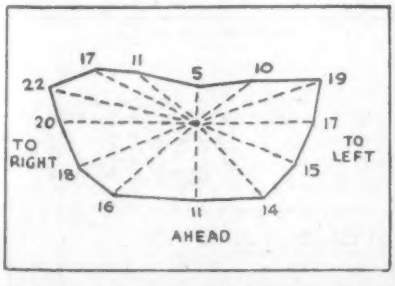
2. Reason for "class". Records show that in college ball, 1 in 8 1/3 is safe. Central League 1 in 10 7/12 is safe. American Association 1 in 12 2/34 is safe. Major leagues 1 in 15 3/10 is safe.

3. "Class" in baseball. Due to "teamwork" rather than to mechanical ability. "Inside baseball" is art of getting the hits that "he couldn't have got anyhow."

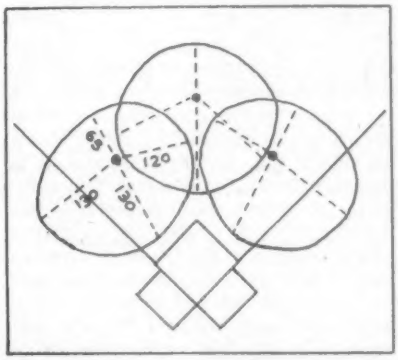
Defensive Team Play Depends Primarily Upon the Pitcher

Defensive team play depends primarily upon the pitcher because the pitcher must have control and must put the ball where it is called to be pitched. Next the team needs to know what is to be pitched. Berry says that a college team should know at least the following:

1. Whether a fast or slow ball is to be pitched. 2. Whether the pitch is to the inside or outside edge of the plate. 3. Whether a "waste ball" is called. 4. Special play signals. Throw to first, second, etc. 5. When the second baseman and when the shortstop should cover second base. 6. Location of hits depends upon kind of ball pitched. Right field—high fast outside balls. Left field—low over, low inside, and slow balls. Reverse the above for left-handers when batting. 7. Shift only after the pitcher begins delivery. The start is the important thing. 8. Look out for batters who hit anywhere. 9. Further defensive considerations. Baseman playing deep—every foot back covers a foot wider. Strength of arm is a great help here. Playing in greatly increases chances of safe hits. Baserunners tie up basemen and increase chances of safe hits.



This diagram was taken from "Baseball Notes for Coaches and Players," by Elmer Berry, and The American Magazine, May 1910, p. 11.



Territory covered by outfielders. This diagram shows that an outfielder can travel 130 feet to his right, 130 feet forward, 120 feet to his left and only 65 feet back when fielding the average fly ball. (Fullerton, American Magazine, 1910.) This information becomes very useful when the baseball game situation occurs which finds the winning run on third in the final inning with less than two down. The outfielders are pulled in to cover the area that will still allow them to throw home and stop that winning run after they catch the ball. Knowing that they can travel back 65 feet they might be able to move in to a spot sixty feet ahead of their throwing ability. In this situation if the ball goes over their head the run will score anyway.

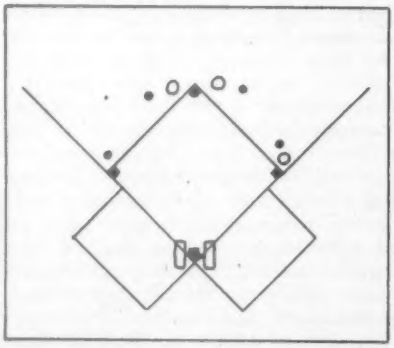
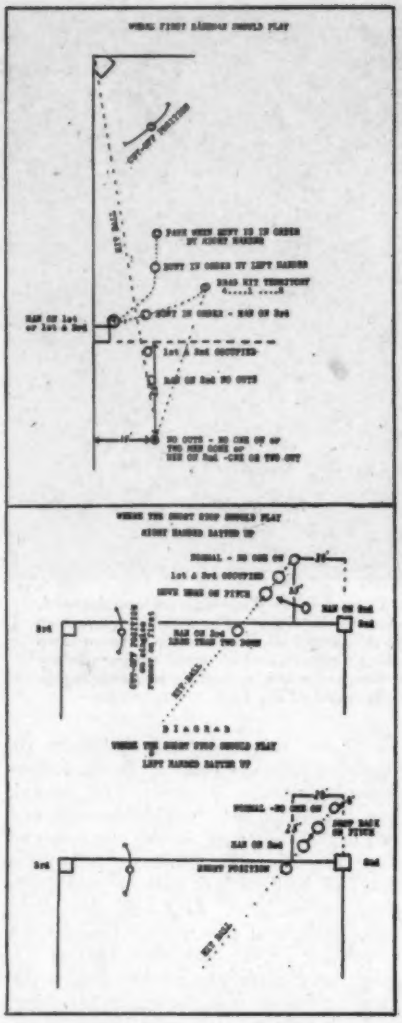


Diagram shows how baserunners "tie up" fielders and make hits more likely. Black dots show position of players when no one is on the base; white circles show position of players holding up runners when there are men on first and second and no one out.



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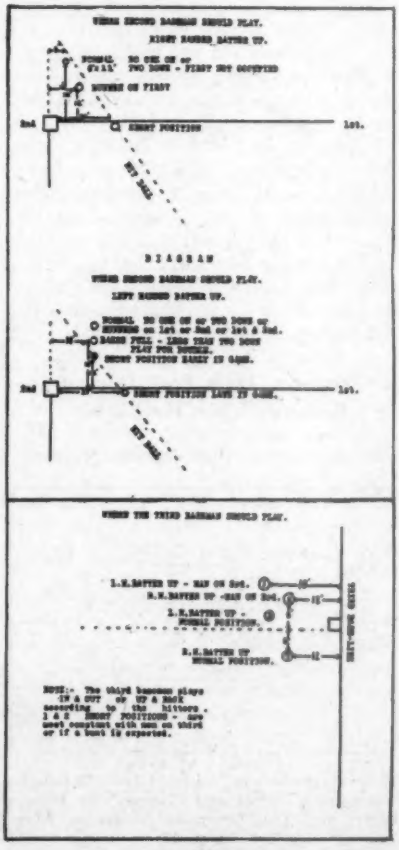

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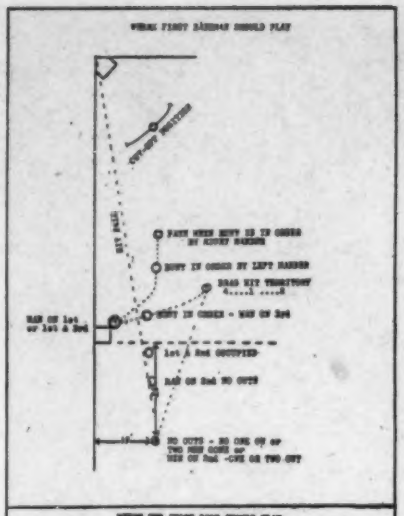

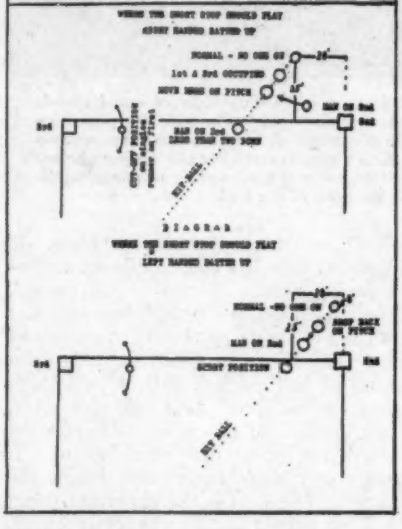

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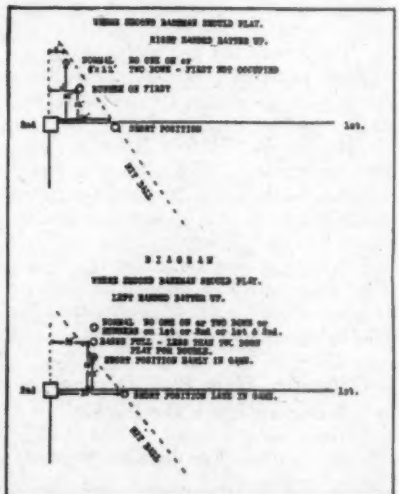

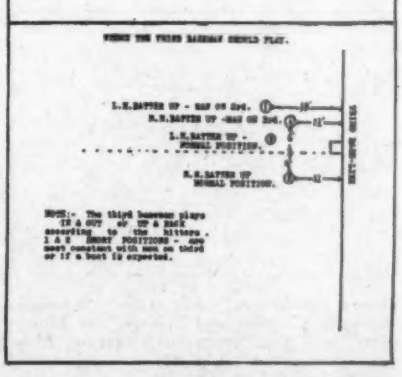

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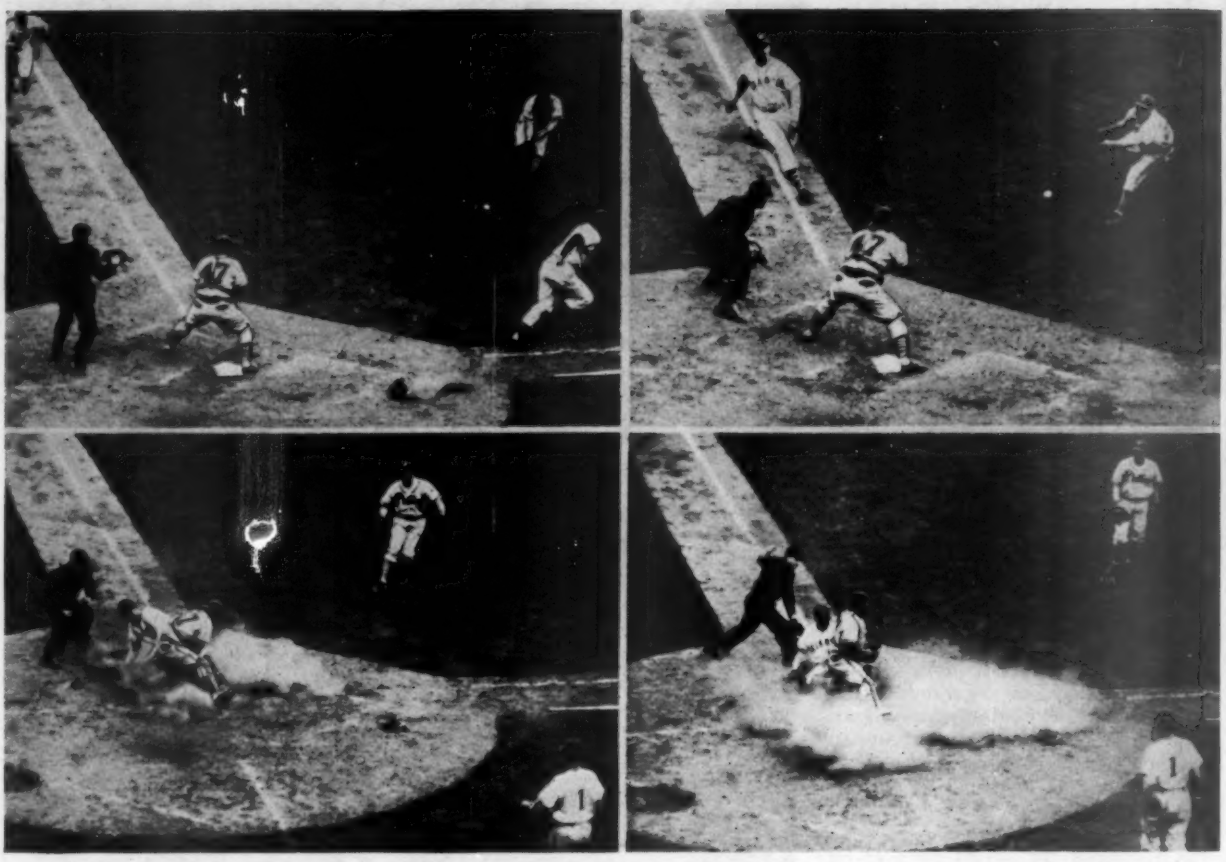


A seventh inning attempt at a squeeze play by the Giants is foiled by the Phillies in the teams' season opener in New York, April 16, and Johnny Rucker, New York outfielder, is out at the plate. (Top left) Giants' pitcher, Bill Voiselle, heads for first after bunting and Rucker speeds home. Phillies' pitcher, Art Lopatka, runs to field the ball as catcher, Rollie Hemsley covers the plate. (Top right) Lopatka tosses to Hemsley and (lower) Rucker is tagged out.

and in sight is a very important factor in success. A fake throw early sometimes will result in the fielder tagging the man himself but this fake needs to be early because, if it fails, the arm must recover in time to make the throw for the one-throw put-out on time. As Berry says, "sprint after the runner—make him run" is another secret of success. Chase him back fast and time the throw and all is over quickly.

Double Steal with Runners on First and Third

In college baseball some early-season games are lost or won by the attempting of this steal. If the defensive team has not covered this early, they may be the losers or they may pass it up and let the offensive team move their man from first to second without trying to stop it.

Berry listed these things: "Try for runner from first. Catcher pegs directly to second. Shortstop covers second. Second baseman cuts off the throw if the runner on third starts. May be varied by signal, shortstop cutting off the throw. Quick return of the ball to home or to third if the runner on third starts home or leads off too far, before or after tagging the runner from first. Caution—don't let runner from third score. Get runner at third rather than runner from first. Fast work may get both."

"Trap runner from third. Quick return to pitcher and sharp relay to third. Third baseman must be alert to cover or catcher pegs to second baseman, who comes in sharp. Sharp relay to third without hesitation. Catcher pegs to shortstop behind pitcher but nearer third. Shorter distance than above. Looks like a throw to second, may fool the runner from third into too big a lead."

Experience has led me to make one addition to the defense against this play. I like to have my first baseman follow the runner from first down the base line and be in position to make a one-throw put-out from the second baseman if the runner holds up and tries to stay in the "pickle" in case the runner on third did not break. With this defense, we get the runner from first at once and then if the runner on third makes a late break for the plate we can get him too. I like this better than trying to teach the players working on the run-down of the runner from first to do their job right, and still give some sort of signal to break off and throw home if that runner tries for home. Naturally success of this defense depends upon having players with baseball alertness and smartness to size up the situations instantly.

Double Steal with Runners on Second and Third

Quoting again from Berry's book we find the following: "Where runner from second takes too big a lead, pitcher turns and runs down runner from second. Watch the runner from third; trap him when possible. Quick throw from the pitcher to second baseman or shortstop. Watch the runner from third."

This is good defensive baseball. I know of one high school coach who built up a play in which the catcher threw immediately to the third baseman who relayed the ball sharply to the second baseman who was astride the base and thus caught the runner off second by the unexpectedness of the move. This is a defense measure with second and third covered even if

(Continued on page 60)

Illustration 1: A sequence of Lambert Redd jumping 25 feet, 6⅝ inches using the hitchkick in the progress of the flight. In the first sketch at the right note the flat-footed take-off, the lowered position of the arms in the gather, and the semi-crouched position of the take-off leg preparatory to the spring. The second sketch shows the forward balance over the board, the straight line from toe to head in the drive at the instant of leaving the board. The third, fourth and fifth show the first, second, and third parts of the running stride used in the flight by many champion jumpers, and the last sketch shows the knee-bend landing.

THE idea of presenting an historical technical article on the different events of track and field originated with T. E. Jones track coach at the University of Wisconsin. Not only has he compiled the records but he has a voluminous collection of pictures and prints illustrating the technique of the various events. This history of technique of track and field athletes will be appreciated by thousands of coaches as the years pass by. The High Jump, High Hurdles and Pole Vault have been presented in similarly historical-technique articles in preceding years. These are on file in the Congressional Library in Washington.

Progress and Essentials in the Development of Broad Jumpers

By T. E. Jones
Track Coach, University of Wisconsin

THE running broad jump as a human activity dates back to antiquity, and in spite of the progress shown by the record graph in the past seventy years, it is quite likely many of our pre-historic ancestors made jumping performances, from necessity, beyond any of our present day-records. However, they did not stop to measure them.

As one follows the record-breakers' line and compares the athletes of today with their predecessors, starting with the First American Championship in 1876 when the event was won by I. Frazier with a mark of 17 feet, 4 inches and the world record of 26 feet, 8¼ inches established by Jesse Owens in 1935, one notes an improvement of 9 feet, 4¼ inches,—more than a 50 per cent rise of the standard. There were performances of around 23 feet in England and Ireland before the American Championships were organized. No doubt there were among the sturdy American pioneers men who, if in competition, could exceed this initial record. Both George Washington and Abraham Lincoln were champions of their day and were said to have jumped over 22 feet.

The steady improvement in standards must be attributed to many factors, among which are increased participation, thereby increasing the chances of uncovering natural talent, faster runways, improved equipment, better technique, better coaching and training methods, and a more thorough study of the event with the emphasis placed on perfecting the approach-run and relaxation. The importance of relaxation is emphasized by the superiority shown in this event during the past twenty-five years by our colored athletes who have won most of the national championships during this time, due mainly to their suppleness and speed.

Physical Requirements

A good broad jumper must possess strong elastic muscles. He must be well endowed with speed, strength, leg power, spring and co-ordination. The legs, ankles, arches, and abdominal and back muscles must be developed to a degree where they can withstand the shock of the take-off board. The muscles must be of a stronger fibre than those of a sprinter or any other athlete.

We find great variance in the body-build of blue-ribbon performers. Owens, Hubbard and many others were of rather slender build and average height and weight. Kraenzlein, Johnson, Brown, Gordon, and LeGendre were all better than 6 feet in height. Mercer, Stiles, Butler, and Nambu approach the muscular type of build. The primary factor in all builds is native speed, spring, and explosive force. Like the champion sprinter, broad jumpers are born more often than developed.

Equipment

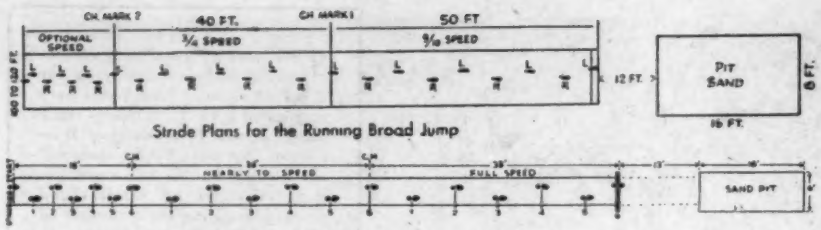
A broad jumper should have at his disposal two pairs of shoes, one a regular high jumping shoe with two spikes to the heels to be used in practice to prevent heel bruises. During the preliminary period it is always advisable to wear shoes with heel spikes for protection. The other pair should be sprinting shoes with felt or rubber padding in the heel. The advantage of the sprinting shoes is that they permit maximum foot leverage, because the heel is lower, and the shoes are lighter and break less ground. The most desirable, if possible to obtain, is a modified type of sprint shoe with eight spikes, two being short and placed about an inch back of the regular spike, with a short detachable heel spike, a fairly wide shank, a low heel, a high counter, and a comfortable heel fit.

Approach Run

Since the run is a very important factor in successful broad jumping, great care should be exercised in determining the proper length and the best method of hitting the take-off board.

The length of run used by the best jumpers is approximately 115 feet, including their four or six preliminary steps. Owens used 110 feet, Hubbard 115, Gordon 120, and Hamm 125. This varies, however, because some men require greater distance than others to pick up speed.

The manner of the run is important. Before a satisfactory take-off can be attained, a uniform stride must be developed. This is best done through sprinting practice. An accurate sense of speed, also, at all points of the approach, is absolutely necessary. The run should be gradually accelerated, and top speed



Stride Plans for the Running Broad Jump

The 6-6-6 Stride Method

Illustration 2: De Hart Hubbard showing a straight line from toe to head at the instant of leaving the board. Note the perfect timing of the knee lift and the extension of the free leg.

Illustration 3: Phil Stiles showing excellent form in the plain jump.

should be reached before the jumper comes to the take-off board. Speed should not be stressed, however, to the point that it will interfere with a perfect take-off and rise. Too much tenseness in the run should be avoided until the explosive drive off the board. The jumper should coast the last two strides without losing momentum so that he can relax, crouch, and gather for the spring. He should lower his arms, and shorten his last stride by pulling his jumping leg under him (three or four inches) so as to hit the board with his heel first.

Check Marks

There are several methods of establishing check marks. First, one should ascertain the length of the natural running stride. It should be borne in mind that each stride is four to six inches shorter when the jumper is running down to take off than when sprinting on the track. The greatest help a coach can contribute to a jumper is to assist him in placing his check marks correctly and in mastering the run to the take-off.

Two check marks are generally used by good performers—the farthest one about 90 feet (16 strides) from the board, and the second about 50 feet (8 strides) with a preliminary approach of 15 to 20 feet. We call this the 4-8 and 8-stride method.

For the beginner and less expert, however, it is better to teach the 2-4-6 or 4-6-6 method. These distances depend on the jumper's natural length of stride and his ability to accelerate to full speed. If the run is too long, it will cause a backward angle of the body at the board. When the mechanics and rhythm are fully perfected, the second mark *can be, and is, disregarded by many champions* in order to avoid the distraction of watching the intermediate check mark, and to allow full concentration on the jump. Owens and Hubbard used but one check mark.

The Take-Off or Spring-Off the Board

All effort in this part of the event should be directed toward getting height when the center of gravity is passing over the jumping leg. The body angle must be correct over the board. The take-off foot must be well under the body. There should be

Illustration 4: Meyer Prinstein setting a world record at 24 feet, 7¼ inches using the plain style of jump.

Illustration 5: A. C. Kraenzlein showing the full-forward leg stretch prior to the landing.

Illustration 6: A. L. Gutterson, 1912 Olympic champion, showing unusual height and fine plain jump style.

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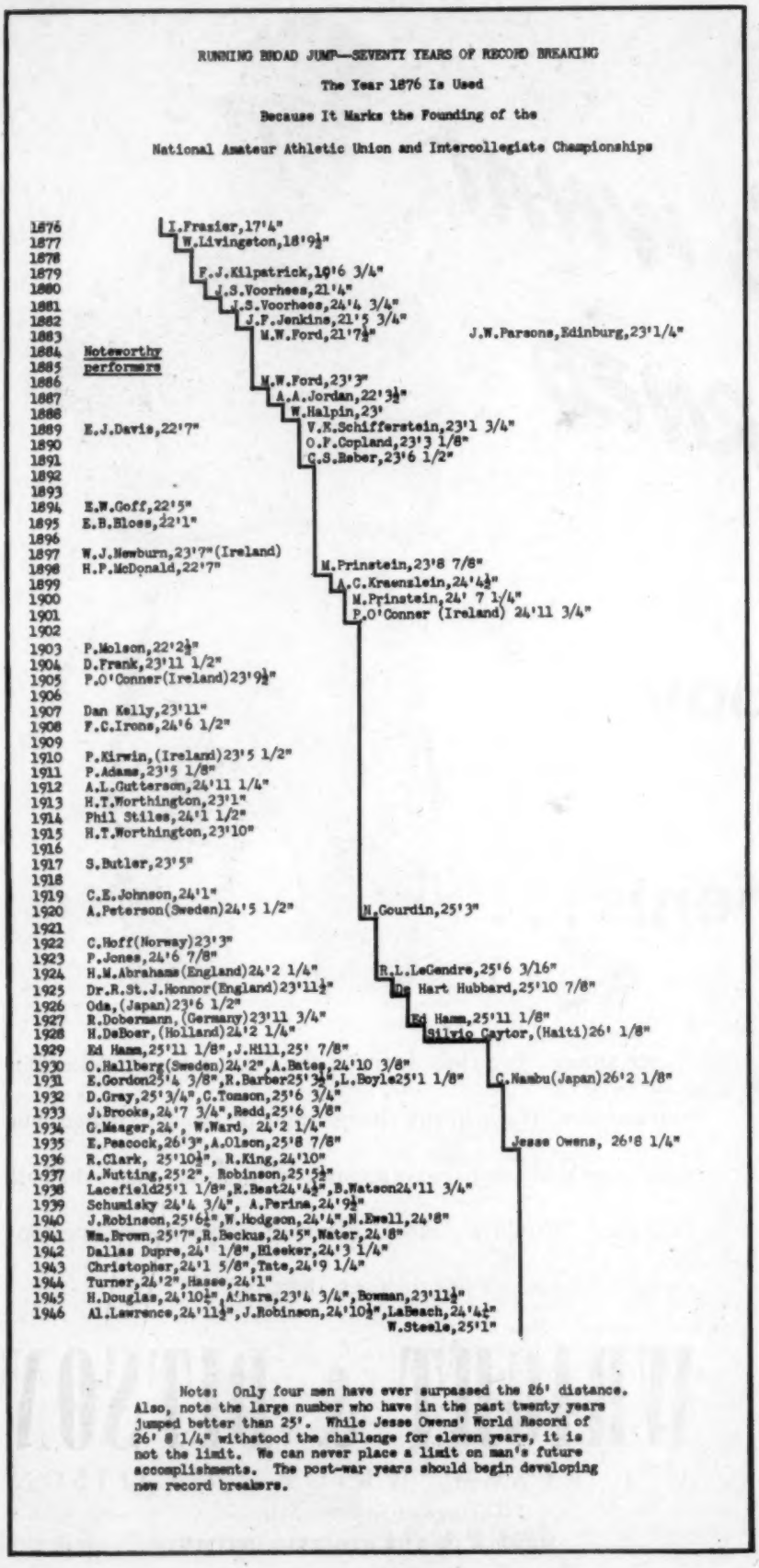

no backward lean, as this reduces the momentum and makes the forward hip-swing impossible to execute. The sequence of foot contact with the board should be heel, ball, toe, with the knee of the take-off leg slightly bent for the lift.

As the jumper leaves the board, the arms are thrown forward and upward, bringing the head up and the torso to a straightened position. The jumper should dwell on the board long enough to give his jumping leg time to complete the spring, and the free leg time to complete its upward swing. The forward swing of the free leg, the drive off the take-off leg, and the forward and upward swing of the arms should be well co-ordinated.

A slight chop of three or four inches in the last stride helps bring the take-off foot well under the body, to produce the upward and forward drive. At the instant of leaving the board, the body should be erect, and all levers fully extended (ankle, knee, hip), approximating a straight line from toe to head, with the balance slightly in front of the take-off board, as shown in Illustration 1, page 15.

Flight

A jumper must be able to leave the board in perfect balance in order to be able to get proper height during the progress of his flight to make his speed effective. The knees should not be drawn up too quickly. The body and arms should be carried forward and upward with the spring.

Broad jumpers may be classified in *three styles* with respect to their flight through the air. The first and most common is referred to as the *plain jump* or *knee-tuck*, in which the jumper, upon leaving the board, tucks his knees up to his chest, holds them there, and sails as far as his height and momentum will carry him. The *hitch-kick* has two variations, one in which the jumper immediately executes a treading or running motion, taking a short stride with his leading leg, then quickly bringing up his take-off leg for a second stride, completing the running action at the highest point of his flight with a forward hip swing, and bringing the feet together, extending them forward with a backward jerk of the arms, followed again by a forward throw of the arms. Arm action should be synchronized with leg action. In the third method, *the delayed hitch-kick*, the jumper makes no immediate effort to bring his knees up or continue the running motion off the board. Instead, he slurs or delays the striding action of the legs until the trunk carriage is erect in the middle of the flight. Then the hips are thrust forward and the legs and arms are brought forward as in the plain jump. The advantage claimed for the hitch-kick form over the plain jump is that the body is erect, which makes it easier to get the forward hip swing at the top of the flight,

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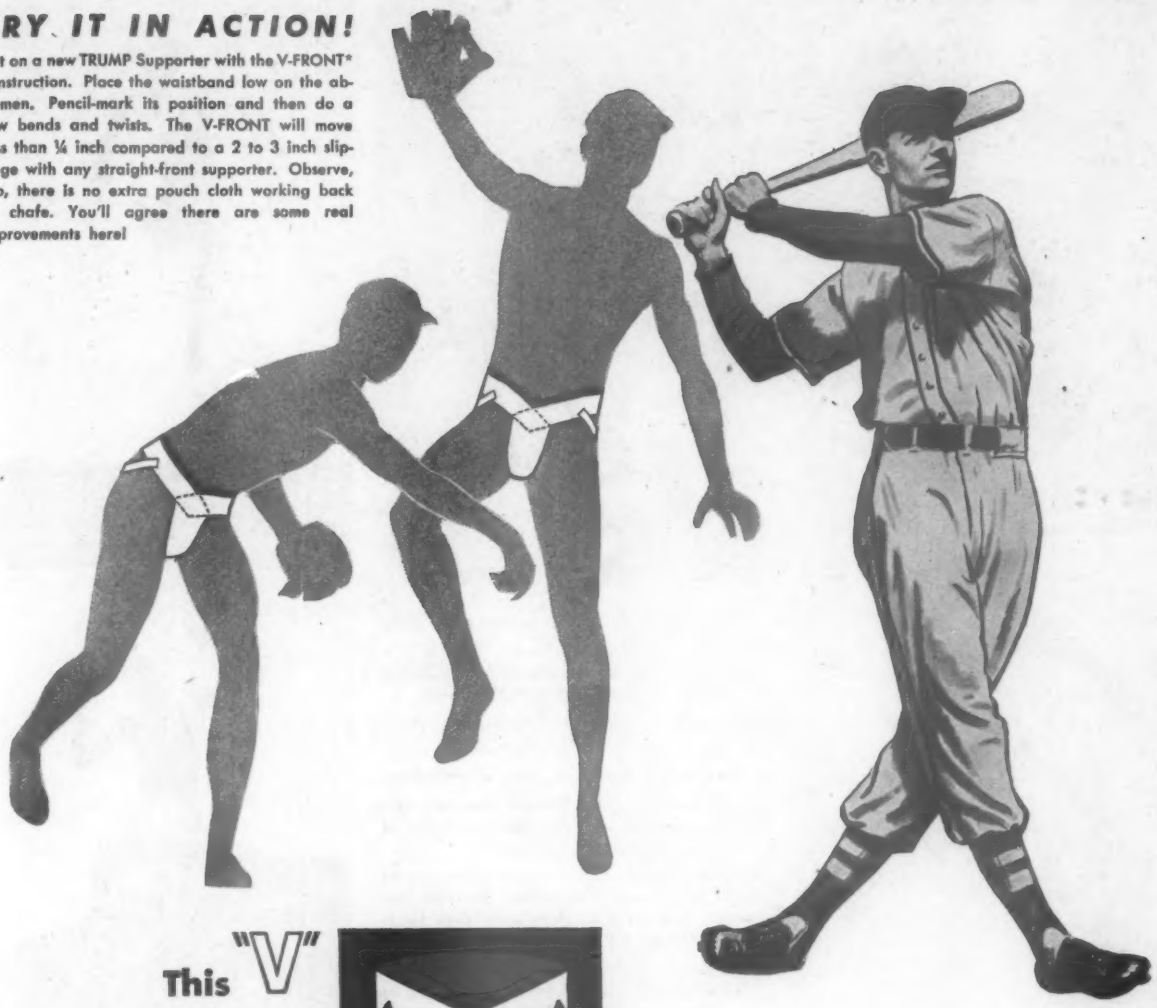

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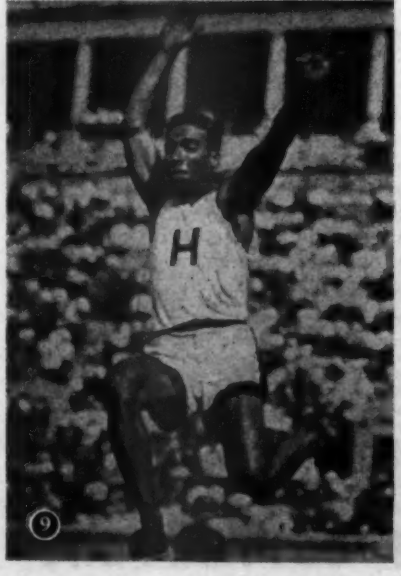


Illustration 7: G. Sundt using turn when landing.

Illustration 8: Hubbard showing the running stride at the height of his flight.

Illustration 9: Ned Gourdin setting world record of 25 feet, 3 inches.

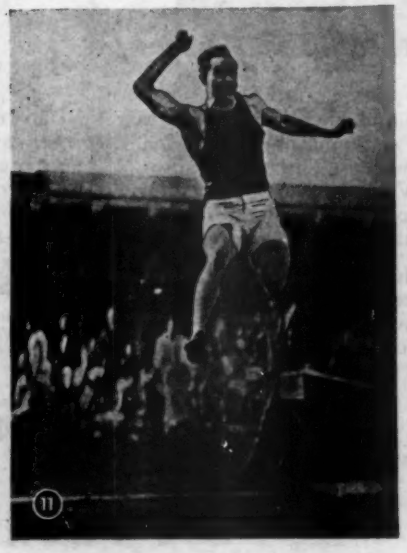
Illustration 10: Abrahams, English champion.

Illustration 11: E. L. Mercer showing fine height and balance. Excellent example of the delayed hitch kick.

Illustration 12: R. L. Le Gendre setting world record at 25 feet, 6⅝ inches. Note his fine balance and height. Also note that he is using the hitch-kick style.

Illustration 13: Ed Gordon, winner of the 1932 Olympics, showing excellent height as the running strides are completed, preparatory to leg stretch.

Illustration 14: Nambu (Japan) using the hitch-kick before the legs are drawn up for the leg stretch in landing.



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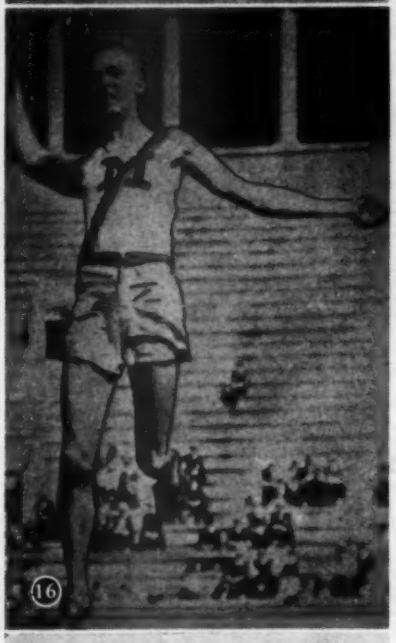


Illustration 15: G. Stinchcomb showing full straightening of body, arms and legs in drive off the board. Delayed hitch-kick style.

Illustration 16: Carl Johnson showing perfect forward hip swing, with delayed hitch-kick.

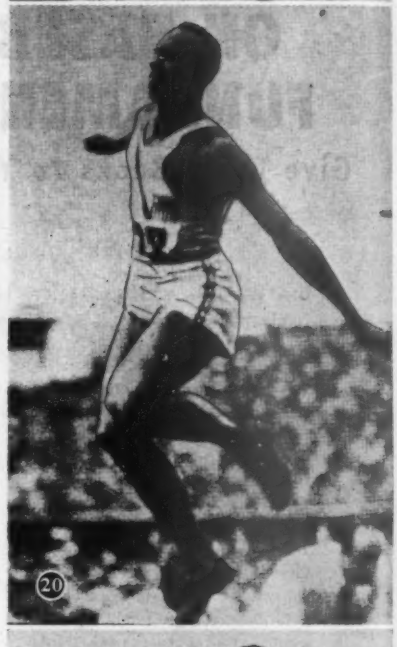
Illustration 17: E. B. Hamm, an Olympic champion, with 25 feet, 4¾ inches. Later he set a world record 25 feet 11⅜ inches, the last white man to hold the record. Delayed or modified hitch-kick.

Illustration 18: Bill Portness showing delayed hitch-kick, fine height and forward hip throw.

Illustration 19: Robert Clark, fine height, good balance before the forward hip and leg swing.

Illustration 20: Jesse Owens establishing an Olympic record of 26 feet, 5⅜ inches, showing use of the delayed hitch-kick near the top of his flight before drawing the knees up in preparation for the leg stretch and landing.

Illustration 21: Richard Barber, 25 feet, 4¾ inches, showing fine forward carry of legs, arms and body.



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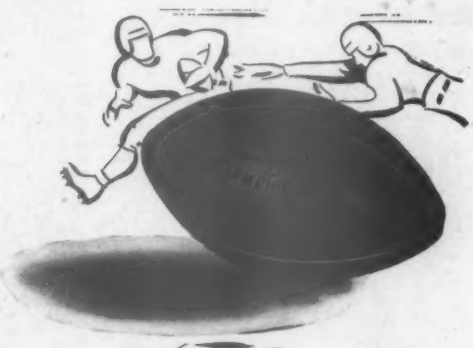

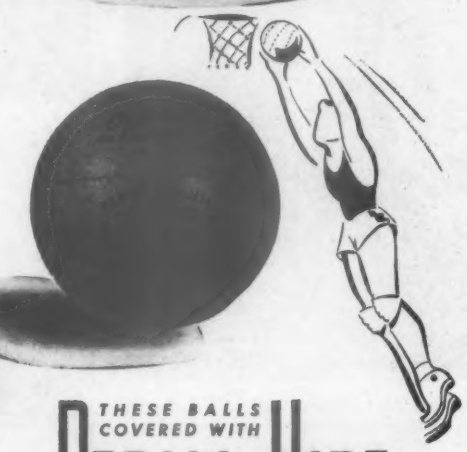

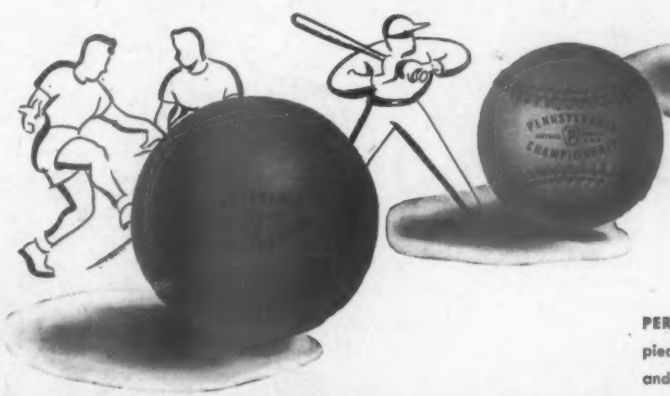

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Illustration 22: F. C. Irons, winner of the 1908 Olympic championship, with a leap of 24 feet, 6⅛ inches showing the leg stretch, using the plain style of jump.

Illustration 23: Lambert Redd. Note that his knees are drawn up close to his chest and that his body is pressed forward.

thereby giving more freedom for the reach in landing.

Landing

A good landing can add twelve to fifteen inches to the jump. In preparation for landing in any method, the legs should be kept *up* as long as possible before they are thrust forward. The body should be inclined forward from the waist after the hip thrust is made, so as to carry the weight forward with the impact. The arms should be jerked backward to help propel the body forward, then swung forward to assist in the forward balance. It is best to keep the feet together in landing.

There are two ways of landing. The one most used is the straight forward roll over the feet. Some good jumpers turn to the side opposite the take-off leg as they land. In either method the jumper should learn to relax and break at the knees as he hits the pit to allow his body to come forward over the feet.

Points in Competition

Upon reporting at the field, it is well for the competitor to note the construction and speed of the runway, weather conditions, and the direction and velocity of the wind as these factors will make it necessary to adjust the check marks. A variance of one to two feet is often needed.

Illustration 24: De Hart Hubbard showing excellent illustration of the knee break and balance in landing.

Illustration 25: Robert Clark, 24 feet, 11¾ inches, showing good landing form, feet together, fine balance with forward roll.

It is well to experiment with the regular check marks or distances with preliminary runs and make the adjustments necessary before the event is called. The jumper must be confident that the approach-run is adjusted correctly to the varying factors when competition starts.

A line should be drawn on the ground across the runway, and markers placed at the side. A wooden peg, painted in the school color with the competitor's name on it, is suggested. The jumper should run through the approach two or three times and take one easy jump immediately before competition starts.

Before jumping, he should always warm up with short sprints on the track. After thoroughly warming up, he should try to do his best on the first or second jump. During competition, while waiting his turn, he should be careful to protect his legs. He should keep them warm and he should loosen up a little before each jump.

Training

To the average person, the broad jump appears to be an easy event. Just a few short sprints down the runway and a bounce off the board. It is, however, one of the most strenuous of all events. It is an explosive effort producing great muscular shock that puts severe strain on the abdominal muscles, back, legs and ankles.

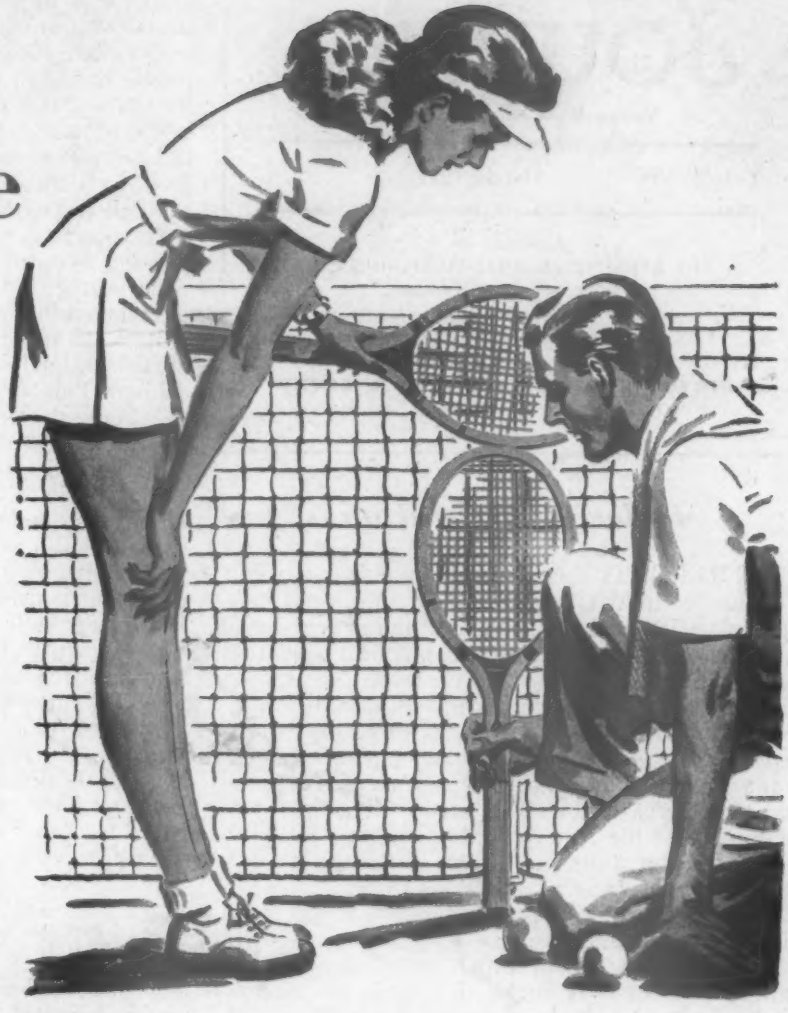
It should not be undertaken without six

(Continued on page 59)

Illustration 26: Jesse Owens. Note excellent balance and leg stretch immediately before hitting the pit.

Illustration 27: Jesse Owens. This picture shows Jesse Owens using the forward roll in landing as he breaks the old record as indicated by the flag in the right-hand corner.

Taking a Net's Measure



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Federal Legislation

WE RECENTLY returned from a four-day conference in Washington, called to discuss present legislation and the need for further legislation in the fields of health, education, physical education, and recreation. There were representatives present from a good number of various organizations; several medical organizations, recreation groups, teacher groups, parent teacher organizations, federal agencies and two magazines, *Parents Magazine* and the ATHLETIC JOURNAL, all working under the leadership of the American Association of Health, Physical Education, and Recreation and its very capable executive secretary, Ben Miller.

Because of the importance of much of the pending legislation and because it directly affects all who are connected with athletics and physical education, it seems wise at this time to present a brief discussion of the legislation and the viewpoint of the majority of those assembled.

The bill of utmost importance to all concerned is S.472, known by the name of the "Educational Finance Act of 1947." The bill, a non-partisan bill, was introduced by Senator Taft and has been read twice and referred to the Committee on Labor and Public Welfare. The bill calls for 150 million dollars in 1948, 200 million in 1949, and 250 million in 1950 and for each year thereafter. The money is to be granted to the states for public elementary and secondary school education excluding interest, debt service and capital outlay. Those states that provide tax money to private schools may also grant the monies under the terms of this act to those private schools. The method of proportionment is rather complicated, being based on a number of factors. One of the factors is the average income payments of each state. It is estimated that today, because of high incomes in half of the states, only 50 per cent of the states would benefit from the provisions of this act. On the other hand, in 1934 when incomes were considerably lower, all but one state would have received aid. There are also certain percentages worked out to provide that, should a state fail to do its share in financing education within its state, it will lose the benefits of the act.

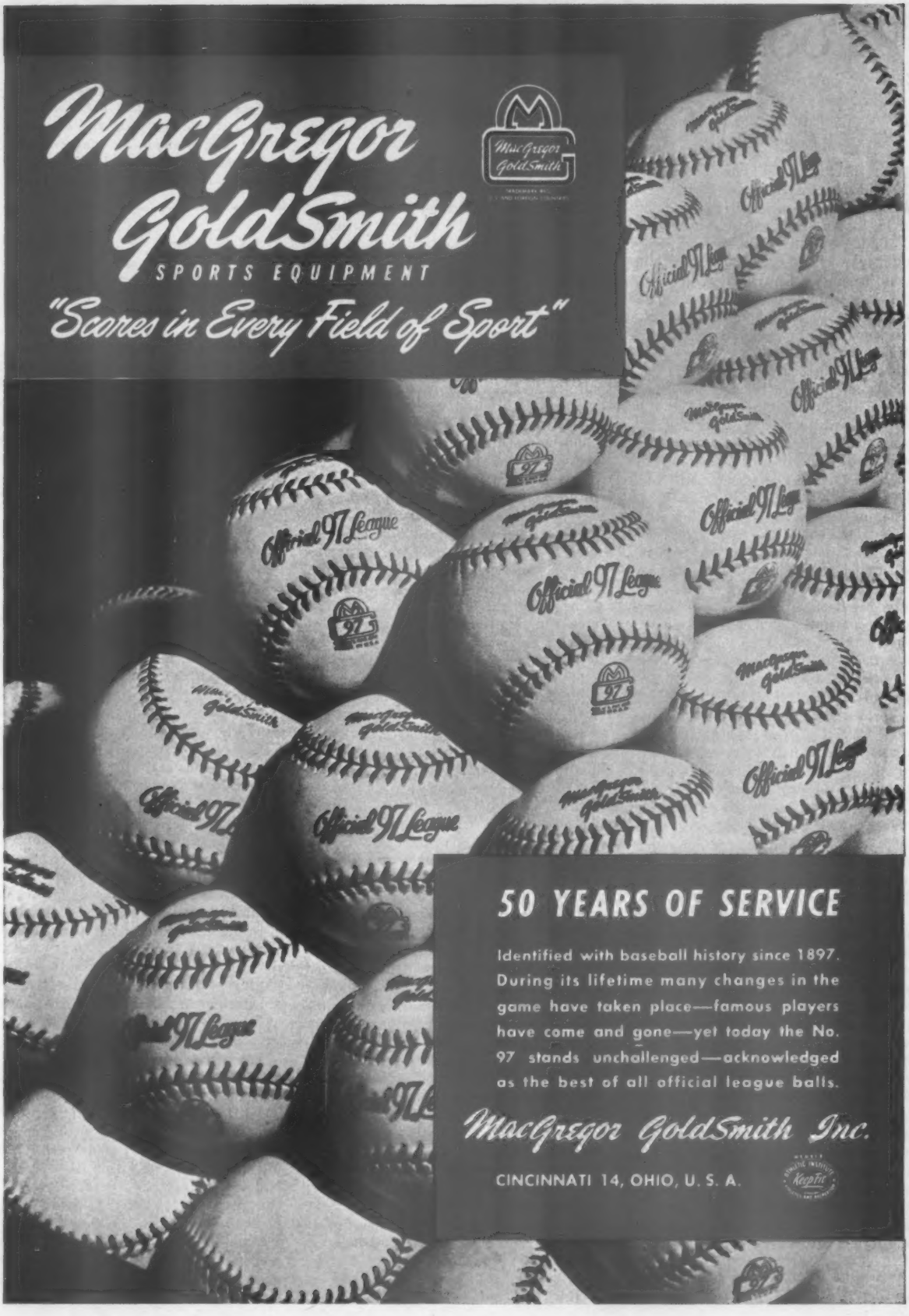
Personally we have always felt that the American public has been prone to underpay those to whom we intrust our children for five days a week and hence we were happy to see those assembled unanimously recommend to their member organizations passage of this bill. The NEA is strongly backing this bill and without attempting to be a Washington correspondent, we feel that it has a good chance of passing even though the economy trend is in evidence at the Capitol.

The next bill of importance is the Taft-Fullbright Bill, S.140 which would establish a Department of Health, Education, and Security with a chair in the cabinet. This would simply take away the powers of the Federal Security Agency, which organization operates the Public Health Service, Social Security and the Office of Education, among others. It is felt that the F.S.A. is already handling as much money as some departments and should be given departmental status. The NEA is opposed to the bill fearing that education might be lost in a maze of other matters. The medical groups are not whole-heartedly in favor of it. Should this bill pass, it will be only after a considerable fight both in committee and on the floor.

A bill introduced by Mr. Taft, S.545 would coordinate all the health functions of the federal government within a single agency. This bill would establish grants in aid to the states for medical services and examinations for everyone. It provides for periodic medical and dental examinations for children in elementary and secondary schools both public and private. The bill provides for a National Medical Care Council, an advisory body of eight appointed members. None of these represent education, although educational facilities are discussed and services extended to school-age children. Some of the educational agencies are opposing the bill for this reason.

H.R.220 known as the United States Physical Fitness Act would continue the National Committee on Physical Fitness established by the President during war time. The commission would encourage the maintenance of fitness through sports, athletics, etc., and would provide facilities for physical fitness activities and encourage the development of physical fitness through the amelioration of physical defects by physical exercise. The bill calls for 25 million to be matched by the states. The grants in aid would be made to the states on a population percentage. The general feeling on this bill is that it leaves much to be required. A cursory reading of the bill indicates that it was a hurriedly-made-up bill because it states that the physical fitness must not elapse at the conclusion of the war. We personally don't believe the bill will ever get out of committee.

(Continued on page 63)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Tools of the Trade

By Gerald P. Burns

Instructor in Health Education, Brooklyn College

THERE is no one who will contest the desirability of the schools striving to make a maximum contribution to pupil's health. Child-health care, and guidance have always been looked upon as one of the essential aims of education. In the last few years, school people have found it expedient to take this essential aim to their bosoms, instead of merely giving it lip service in their conventions and publications.

There are obvious reasons for a rebirth of a genuine concern for the health and fitness of the future citizens. Perhaps the reason with which we are most familiar is the scare thrown into all of us when we first viewed the number of rejections made by the selective service boards. Reasonable people immediately saw the handwriting on the wall; most of the boys had defects which could easily have been corrected had they been diagnosed and treated during school days. The educators of those early days cannot be blamed for the health status of the youth of the nation. Documentary evidence[1] proves conclusively that they strove mightily to effect a correction of the deficiencies existing in the health and physical education programs of the day. Perhaps they failed; but, in looking behind the scenes, we see clearly why they were not at fault. In many cases their hands were tied by the ignorance of the school boards and, ultimately, by the bigotry of the parents of the boys themselves. Nevertheless, it would be well for all embryonic pedagogues to be aware of this possible indictment and profit thereby: We, as a highly educated nation, cannot allow so gross a failure as this to occur again. Steps must be taken now to insure against a discrepancy of this nature taking place at any time in the future. The way to secure this positive insurance against a weakened generation is to take immediate action in the direction of building the health and fitness of our young people, not *tomorrow*, but *now*.

Now is the moment that we can scientifically plan and effect programs of child-health care that will forever guarantee the physical and mental prowess of the inhabitants of the land of the free. Now is the moment that we must gird our loins and prepare youth for the turbulent tomorrow that is foreseen. Now is the moment that we must decide how hard we will train, work, and study to preserve the home of the brave.

[1] American Child Health Association. *Principles and Practices in Health Education*. New York, J. J. Little and Ives, ©1931.

If we are agreed that henceforth we will be satisfied with nothing less than the optimum degree of health for our youngsters, then we have crossed a Rubicon. The next step is easy. We must determine just what should be done to attain this high measure of personal health. Medical science has proved certain essentials mandatory for good bodily condition; in brief, these items are exercise, nutrition, rest, and freedom from disease.

To delve deeply into all four would require more time and space than this article permits. Indeed, to discuss fully any one of these in an exhaustive manner would be an impossibility herein. Therefore, we have selected one specific topic in this group of essentials and narrowed our research to but one phase of the topic selected. Perhaps the most interesting of the "big four" is the area of exercise or body mechanics. The outstanding importance of this aspect of the over-all health program cannot be overlooked. One of the major points in this matter of exercise is the consideration of the materials most used in the endeavor. This, of course, brings us into the realm of facilities and equipment. Either one of these items might offer sufficient scope for a dissertation of length; so, again we delimit the extent of our coverage. The discussion that follows will be confined to the reasons why athletic equipment—balls, bats, etc.—must be modified and adapted to the limitations and capabilities of the users if maximum worth and service are to be obtained.

We are, then, dedicated to procuring the fullest measure of health for all our children. To this end we have named proper exercise as a primary means. If we are to define "proper" (in this instance) as analagous to "scientific," then we must insist that every item connected with this business of exercise be exact and correct for the potential participants. There are many divisions of the area of exercise that have yet to be fully explored in terms of scientific research, but perhaps none have been so completely neglected as has the matter of athletic equipment and sports supplies. In teaching a child to walk, a mother seldom demonstrates a method of running or skipping. In assigning homework, in the early grades, the teacher would not designate a chapter of Einstein's *Evolution of Physics*. By the same token, when developing our games program, we should not expect a high degree of efficiency, enjoyment, or exercise when we pass out bats and balls built for adults. The tools of the endeavor must be created, or at least modified, for the person using them.

GERALD P. BURNS, a graduate of Boston University, where he was captain of the swimming team, is instructor in health education at Brooklyn College. Starting out in the war as a private in the cavalry, he rose to the rank of major, directing programs of physical fitness, and later physical rehabilitation in the army air forces.

It is quite true that some adaptations have been made in the athletic equipment being used by younger children. But, this is done in the case of comparatively few items and is the exception rather than the rule. Further, such few modifications that are in vogue, in most cases, are hardly as effective as they might be if scientifically devised. It is not sufficient that a ball be lighter or a bat shorter. The important thing is that the amount of weight change, or the alteration of the size, be correct and, if possible, standard for the age and size of the children destined to use the equipment.

In academic subjects we find the tools of study geared and standardized for the exact age group which will utilize them. Books, pictures, and even entire lesson plans are evaluated and weighed under laboratory conditions to determine logically at what level they may best be presented. Why should we, in the fields of camping, recreation, and physical education in general, be any the less concerned with the scientific approach to our job. Certainly our contribution is as directly related to the health of the pupil, if not more so, than that of the academic teacher.

If we are willing to devote the necessary time and effort to a scientific approach to this problem of selecting the correct equipment for our exercise periods, particularly game periods, then we have taken the first step necessary to attain a justifiable program from the standpoint of academic education and pure science. Without this attempt toward scientific standardization in all our efforts, we leave ourselves open to the criticism that we are not abreast of the times, that we are merely pseudo-scientific, and that what we preach is quackery.

The standardization referred to above could be limited to certain specific items of sports equipment. The modifications in size and weight alone would be sufficient to start a move in the right direction. We might list the following paraphernalia as critical items that should be built for three sizes (or age groups) of children, Bats; baseball, softball. Balls; baseball, softball, football, basketball, soccer, and volleyball. Rackets; tennis, badminton. Sticks; ice hockey, field hockey.

In setting up hypothetical divisions for

(Continued on page 57)

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Characteristics That Make Good Batters

By James Smilgoff

Baseball Coach, Taft High School, Chicago

JAMES SMILGOFF in the January and February issues in two illustrated articles covered receiving techniques in catching and catching skills. In the treatment of the subject of batting, Mr. Smilgoff has approached the subject from the angle of characteristics as distinct from that of techniques. This article will be concluded in the April issue.

WHAT constitutes a good batter? How can I become a good batter? What are the rules in batting that insure success? These are common questions often asked of coaches.

There is no certain short cut to success. The road to success is heaped with obstacles, rules, thoughts, and actions. To overcome these obstacles requires work, hard work in studying, learning, and practicing how to increase batting success.

The following characteristics are all inclusive. Each is not necessarily applicable to every batter. They sum up the total experiences of all good hitters. They are the "associated practices" that underlie and regulate the visible actions of the batter who is at the plate. In some cases it may be necessary to modify these to suit the individual's needs, and style of batting.

These characteristics ought not to be confused with techniques, which are visible actions. In the batting process there are many items that cannot be seen; these are of a mental nature. I have attempted to describe these as "characteristics," in contrast to the physical actions in the batting process known as techniques.

Good Batters Hit Only at Good Pitches

Good batters train themselves through constant practice to become well acquainted with the strike zone. By this means they judge each pitch in practice, and mentally determine the extent to which a pitch is inside or outside, high or low. By hitting only at good pitches the batter increases his chances of meeting the ball squarely, since his stance at the plate, and his swing are arranged to meet the ball squarely if it is a strike.

No adjustment is made to meet the pitch if it is a ball. Smart pitchers often try to get the hitter in a hole by intentionally pitching off the corners of the plate, or just outside the strike area. They tease the batter by trying to get him to go after bad pitches, and thus he becomes an easy out. This leads to weak hitting as over and against the good hitter who is not teased into swinging at bad pitches, but who swings only at good ones. In this way the good batter gets ahead of the pitcher in the ball-and-strike count, and more or less forces him to come in with a good pitch.

Good Batters Hit the Ball Hard Almost Every Time

Practically all batters try to hit the ball hard (squarely) each time they take their turn at bat, but only by constant practice and hard work can this be done. Good batters are never satisfied unless they hit every ball hard and sharp for a base hit. By following this pattern they improve because they refuse to become satisfied with whatever success they have had in the past. It is said that someone once asked Paul Waner, former Pittsburgh outfielder who was a great hitter, what he considered the secret of his success in batting. He is reported to have answered, "I try to hit every ball hard. If I hit only seven out of ten on the 'nose,' and half of these are caught, I still will be hitting .350." Hard-hit line-drives often land for base hits; pop flies and ground balls are usually sure outs.

A Good Batter Makes the Defense Work Hard to Get Him Out

He is always "doing something" at the plate; not something to disturb his own hitting success, but setting out those little decoys, and making false motions that disturb the defense players and tend to make them jittery. He fakes a bunt toward third base occasionally when he thinks it proper. He bothers the pitcher occasionally with this false indication to bunt. Sometimes he moves around in the box a bit when taking a pitch, thus trying to disconcert the pitcher's concentrated efforts by giving him a moving object to which to throw.

He tries to get at least a "piece" of the ball when fooled on a pitch. A foul ball often gives the batter "life" at the plate; another chance to face a pitch and get a hit. Most good hitters can be fooled on a pitch and still get the bat around in time to foul it at least, instead of letting a third strike float by.

Good Batters Get the Pitcher in a Hole

By refusing to go after bad pitches, the batter gets the pitcher in a hole even though the hurler has an advantage on the ball-and-strike count. Under these conditions the pitcher has to throw a good pitch, often called a "cripple," or the batter will probably receive a base on balls. It is this "cripple" for which most good batters work, upon which they depend, and which they hit best.

Furthermore, pitchers often quit pitching to a batter's weakness when behind in the ball-and-strike count, since the possibility of walking the batter becomes too great. Thus, the hitter now gains the advantage by forcing the pitcher, who is in a hole, to change his tactics by reducing his percentage of favor in the ball-and-strike count, which is four balls to three strikes.

When the pitcher first starts pitching to a batter, he has the advantage of pitching four balls before the batter walks, whereas the batter is called out on three strikes. Should the count be two balls and no strikes on the batter, or three balls and one strike, the advantage changes since the pitcher is closer to the walk count and proportionately farther away from the strike-out.

Good Batters Are Tough in "The Clutch"

When the "chips are down," and the pitcher tightens his belt, and grits his teeth, preparing to go to work on the batter, then it is time for the hitter to pull together all of his determination and mental faculties to concentrate even more than before to meet this greater challenge. Good batters do not wait or give up in the "clutch" when the opposing pitcher gets tougher and harder to hit. This is the challenge that often determines whether the batter is a good hitter or not. Good hitters recognize the fact that they are in a tight spot, and they make the most of it by bearing down at the plate, and by driving in those important runs that so often mean victory. The greater the challenge, the greater should be the determination and concentrated effort by the batsman to get a hit.

Good Batters Usually Hit to All Fields

Although there are known exceptions to this rule, it is generally agreed that the importance of hitting to all fields cannot be underestimated. Batters who hit to all fields have the advantage of spreading the defense, while those who hit mainly to one field, encourage the defense to

(Continued on page 52)

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HIT

Different batters address the ball with different styles. In the center series, one batter stands well back in the box and uses a long step, the other half way back using a short step. Notice at the completion of the step the identical location of the front foot. Regardless of their original stance, the body positions are identical at the peak of the hit.

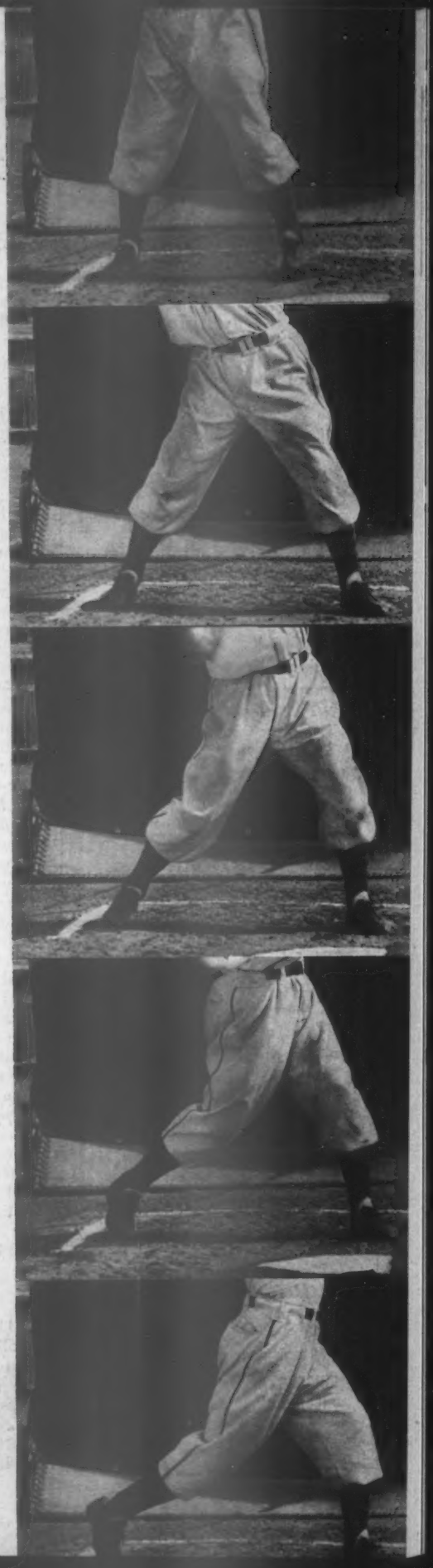
In this series (left) illustrating cracking or breaking of the wrist, we find the bat held off the shoulder and well back. Before the swing, the grip should be relaxed, wrists free and loose. Just before the impact, the grip will tighten as the wrists start going into the ball with a whipping action. Notice that just prior to impact the hand knuckles are in a straight line with the finger knuckles. This fact permits the wrist to break, without interfering with the swing.

WAY

This sequence (right) illustrates the hip action and the pivot. After the stride, the weight is shifted to the front foot, and the back leg is slightly bent at the start of the swing, otherwise the power of the swing will be lost. After the swing, the back foot has made a ninety-degree turn and is up on the toe. The front foot points in the general direction of the pitcher, producing the correct body pivot, which brings the front hip back and out of the way for a free swing.

•

The batter with the shorter stride has met the ball slightly farther in front of the plate than the other batter. The remaining part of the swing is practically the same, although the follow-through of the long-striding batter is more pronounced. The films on these pages are taken from the film "Hitting in Baseball," produced by *Encyclopaedia Britannica Films, Inc.*



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Riflery in the Colleges

By Marie Haidt
Associate Professor Pennsylvania State College

IN THE part of this article, which appeared in the February issue, Miss Haidt presented the increasing demand among college women for the individual type of recreational sports in preference to team sports. Steps to be taken in establishing a rifle program and the first four lessons in instruction procedures were outlined.—Editor's Note.

LESSON V. TRIGGER SQUEEZE AND FIRING: In the fifth lesson all previous mat instruction is revised. The students are then taught to squeeze the trigger, to follow through, open and close the bolt, to load the gun, to level the gun to each of the five bulls on the scoring target through adjustment in the level and location of the body, and to prevent "canting" or twisting the rifle. If time permits they are permitted to fire a few shots in preparation for the next lesson and to get the feel of actual firing.

This preliminary instruction is probably covered much faster than it should be, however, students grow impatient; they want to shoot as quickly as possible and a little sacrifice must be made in the rate of instruction procedures in order to satisfy this eagerness.

LESSON VI. SHOOTING A FULL TARGET: As a rule students are ready to shoot a full target by the end of the fifth lesson. Occasionally this may occur a little sooner. We use the Official NRA 50 foot indoor gallery target having five bulls. Two shots are fired at each one. The highest possible score for a single shot is ten, or twenty for each bull, and, one hundred on the whole target. For several lessons students usually shoot only one target, thereafter, many of them like to shoot two or more. In all succeeding lessons instruction is more or less a matter of practice on individual corrections in such common errors as body positions, breathing, tenseness, trigger squeeze, canting the rifle, et cetera. Advanced instruction is given, of course, when students are ready for it. Knowing how to hold the gun, how to aim, and when to squeeze the trigger are objectives that are emphatically emphasized for successful shooting whether it be with the beginner or the advanced marksman.

Facilities for the Rifle Range

The facilities needed for riflery are not prohibitive. Perhaps the greatest single feature to be secured is a desirable area for a shooting range or gallery. Many basements have unused stretches of sufficient length that would serve well for a start. After the sport is well established and well attended other desirable areas may be more easily obtained. A rifle range for women students would serve best if located in the physical education building for women where all other recreational activities are concentrated. So placed, there would also be more effective supervision of the facilities, the equipment, supplies, and instruction. A more successful administration of the whole situation would be assured.

Indoor shooting ranges are usually fifty feet or seventy-five feet long. Most colleges have fifty-foot ranges. This distance refers to the area from the muzzle of the gun to the target. In addition to this stretch it is necessary to provide for sufficient clearance behind the firing line for shooting mats, other necessary equipment and general traffic. Thirty feet are suggested as a minimum. If there is too much room the possibility of having a great many spectators is certain, and, undesirable because of distraction to the participants. The width of the room is optional and depends upon how many firing points are desired or possible. The suggested thirty-foot clearance could be reduced somewhat according to the width of the range. The ceiling height, likewise, is optional. It should be sufficient to permit plenty of head room and to allow for safety and good ventilation. Powder fumes can become very unpleasant. Windows serve a purpose only in providing ventilation between shooting periods. A dark room and electric lights provided with reflectors and flood light lenses are all to be desired in preference to natural light. Target lights may be so placed as to reflect from the ceiling or the floor, or, they may be attached to the sides of the target boxes as desired. All lights may be turned off during firing except the target flood lights, or, the room may be kept completely lighted at all times. This is a matter of choice. If the former practice obtains there should be some shielded lights behind the firing line and at the scoring table to facilitate obvious necessities there. Heat, for comfort is necessary. A cold body is tense. Relaxed muscles are essential for accurate shooting.

There are two types of indoor ranges. The closed range is constructed with wires and tracks suspended from the ceiling and extending from each firing point to each target. They serve as carriers for the scoring targets. A crank, or, wheel beside each participant, within easy reach, is manipulated to retrieve and return the scoring targets. This eliminates the necessity of walking to the target to secure scores and reduces the danger of accidents.

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However, since such a gallery is filled with wires the area cannot be used for any other type of activity. The open range, on the other hand, is clear and free from any obstructions. The participants, upon orders from the range manager, or, instructor, walk forward to the targets to secure scores. There is, obviously, some possibility of danger in the open range. However, if proper regimentation is established and followed, perfect safety should prevail. The floor area, then, is available for other types of activity when not being used for target practice, and, the cost of retrieving equipment necessary in the closed range is eliminated.

The walls and floor of a range may be of stone, brick, or cement in those areas where there is some possibility of stray shots, or, splattering fragments of lead. At the target end of the range a steel plate standing against the wall at a 30 to 45 degree angle with the top edge foremost is desirable. This should rise to a height sufficient to protect the upper area of the wall and should extend around the side walls for a few feet. The purpose of such a backstop is to prevent bullets from passing through the wall, chipping the wall, and, to deflect splatter downward. Otherwise the splatter might travel all the way back to the participants and cause injury. If an old basement area is used and the wall is such that these dangers are not present a steel backstop would not be necessary and would eliminate costly construction. Access to the room should always be from behind the firing line only.

Equipment and Supplies

RIFLES: Specifications for intercollegiate competition call for any .22 calibre rifle not weighing over ten pounds. Any sights may be used not containing glass.

The trigger pull must be at least three pounds.

Many girls own their own rifles and prefer to use them.

One rifle for each firing point is sufficient, although more are desirable.

TARGET BOXES: Each firing point should have a target box, or target butt. These boxes are made of 1" wood. A good size is 50" high, 32" wide, and 11" deep. Steel plates laid horizontally and at a 30 to 45 degree angle in the box at intervals sufficient to prevent bullets from passing through the back of the box will deflect splatter downward and secure it. The box should be filled with sand to hold the fragments. A frame or slide, about 18" high and covered with ¼" sheet rubber should be so placed in the front of the box that it may be raised to different heights. The paper scoring target is suspended from the top of this slide by means of hooks and rests against and directly in the middle of the rubber covering. The purpose of the rubber is to prevent lead and sand splash. Nothing will serve this

purpose so well as rubber because a hole pierced through rubber will immediately close itself before the splash occurs. Our target butts have doors, hinged at the bottom. These doors are opened flat to the floor during rifle season and closed with a hasp and padlock when the season terminates. On the inside of each door we have a thin plywood sighting board which rises to a perpendicular position by means of hinges on the lower edge. When in use this board is held in place by an arm extending from the side of the target box. This is a very practical and convenient arrangement.

The height of the target box suggested in this article is for shooting from the prone, sitting and kneeling positions only. Women's intercollegiate matches usually call for prone position only, but some advanced women marksmen like to practice in the other two positions for variety. For shooting from the standing position, obviously, the targets should be higher.

SCORING TARGETS: Specifications for intercollegiate competition require official National Rifle Association Fifty-Foot Indoor Gallery Targets, for the fifty-foot range, and, of course, their official seventy-five foot target for any matches that are fired at that distance. The women usually shoot fifty feet.

AMMUNITION: Specifications for intercollegiate competition require any standard .22 calibre rim fire ammunition.

SHOOTING MATS: Mats are necessary for shooting in the prone, sitting and kneeling positions. Shooting mats may be purchased but gymnasium mats or thin cot mattresses will serve satisfactorily.

SPOTTING SCOPE: At least one 20 to 30 power spotting scope is necessary. This is used behind the firing line by the instructor for observing the location of shots on the scoring target. A spotting scope beside each participant, and used by the student coach, is desirable but not necessary.

SHOOTING JACKETS: Padded shooting jackets are necessary for comfort and to assist in securing the gun. Old army jackets may be remodeled for this purpose and serve quite satisfactorily.

SCORING GAUGE: A scoring gauge is used to determine scores that are questionable. A gauge is not necessary but certainly very helpful.

AMMUNITION BLOCKS: Blocks are easily made. One inch blocks of wood 2½" wide and 5" long with sufficient holes the size of a cartridge to hold as many rounds of ammunition as desired serve a very good purpose. Ammunition is greasy and if layed on the mats will soon spread a greasy surface upon them. If ammunition is placed in a block it is kept clean, orderly, and, readily accountable.

SIGHTING BOXES: These boxes are used for sighting practice only. They are made of light weight wood about 12" high,

(Continued on page 62)

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Revival of Amateur Baseball

By Lloyd Messersmith
Southern Methodist University

LLOYD MESSERSMITH, a three-letter man in football, basketball and baseball at De Pauw University, coached basketball at Shortridge High School in Indianapolis, before returning to his alma mater as director of intramural athletics and physical education and baseball coach. In 1945, after fifteen years at De Pauw, Dr. Messersmith joined the staff at Southern Methodist University as Chairman of the Health and Physical Education Department, and Varsity Baseball Coach.

THERE appears to be a definite increase in interest over the country in amateur baseball, both in interscholastic and intercollegiate ranks as well as in independent amateur groups. From the top ranking sport during the early days of intercollegiate athletics, baseball dropped to a point in the decade prior to the war where many colleges either dropped the sport entirely or gave it very little support. Many arguments have been advanced to explain why baseball lost interest in educational institutions but the crux of the difficulty probably revolved around the financial angle. As spectator interest waned, athletic administrators decided to place emphasis upon sports which drew the crowds and supplied the coffers with additional revenue. Very few would admit that baseball was not a worthy game to be included in the school athletic program but too few were sufficiently vigorous in their support of the game to see that it received its share of financial support necessary for successful operations.

Baseball coaches were often selected from the list of assistant coaches in other sports and not too much attention was given to the qualifications of the person placed in charge of the team. The coach knew that this job was not too important and that his retention on the staff depended upon his ability in lines of endeavor other than baseball coaching, so too often he did a poor job with baseball. Baseball does not require the full-time services of a staff member but it does demand the whole-hearted and enthusiastic support of a competent coach if it is to succeed. The practice of appointing qualified professional players to coaching positions is a wholesome sign because it assures the availability of personnel well schooled in the skills and techniques of the game. When these individuals have a proper understanding and appreciation of the place of sports in the whole educational program they can make an outstanding contribution to the development of baseball in our schools.

Interscholastic Baseball

If youngsters are to develop into good players they should have an opportunity to play the game as early as possible and because of the fact that the game does not require the expenditure of energy demanded by some sports, it is particularly well adapted for use by teen-age youngsters. Because of a short season and lack of funds, baseball has not been widely adopted as an interscholastic sport throughout the country, but in those places where authorities have given support to the game it has been very successful. A good example of this is in Dallas, Texas where baseball has developed steadily under the leadership of P. C. Cobb, director of athletics. The six high schools in Dallas play a double round-robin schedule of games during the spring and at most games seats are at a premium with crowds ranging from two to three thousand. A state tournament has also been held under the direction of Mr. Cobb and schools travel from all over the state to Dallas to compete in the finals. The Interscholastic League of Texas voted this year to reinstate baseball as one of the regular sports in the program of interscholastic events which should do much to increase the number of young participants in the game. Other states have indicated a revival of interest in high school baseball and it is hoped that the sport will again assume a place of importance in the interscholastic sports curriculum.

Intercollegiate Baseball

College baseball dropped to its lowest ebb prior to the war and because of the shortage of man power it was eliminated from a great many colleges during the war. With the return of peace-time enrollments, however, many colleges are contemplating a resumption of baseball and others who did not have it before the war are planning on including it in the program. The wide use made of baseball by the armed services gave many soldiers a chance to play and watch the game and they are eager to continue association with baseball as college students. The forma-

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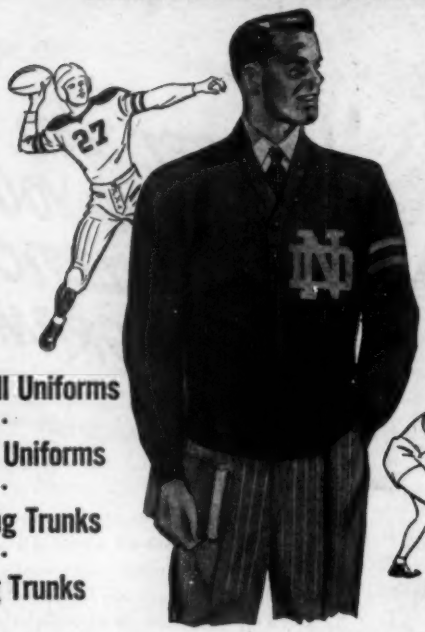

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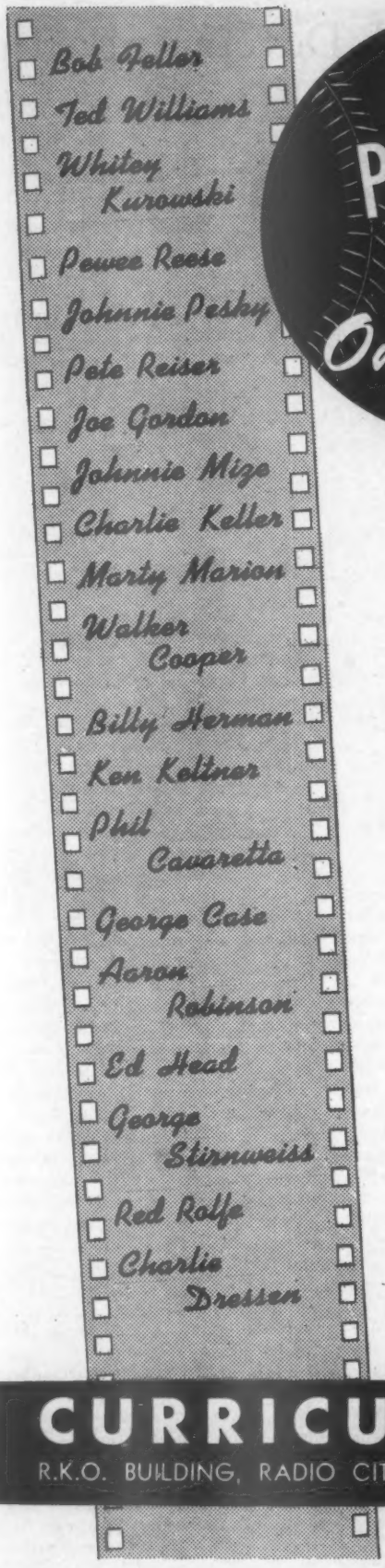
tion of the American Association of College Baseball Coaches last year, under the leadership of E. D. Barnes of Colgate, has given the college coaches of the country an opportunity to present a more unified effort in their desire to promote interest in the game.

At the 1947 meetings of the National Collegiate Athletic Association in New York, a baseball tournament committee was formed, headed by Frank McCormick, director of athletics at the University of Minnesota. The committee has plans under way to organize and administer a college baseball tournament this spring which should be of great aid in promoting interest in baseball in collegiate circles. Teams will be selected from the eight districts of the National Collegiate Athletic Association to meet in an eastern and western play-off with the two winners meeting for a two-best-out-of-three series for the college baseball championship of the United States. This will be the first time in the history of intercollegiate baseball that a tournament has been conducted which involved the entire country and should provide a big impetus to the college game.

The college coaches are interested in effecting a working agreement with professional baseball which will prevent the raiding of collegiate teams for material to fill the professional ranks. Most professional baseball leaders appreciate the importance of a college education and the contribution which the good players can make to the development of interest in college baseball, if allowed to remain in school until graduation, so it is hoped that some agreement can be reached which will be to the best interests of all concerned. A healthy baseball program in educational institutions of the country will be a great help to professional baseball so it seems only logical that the professional leaders will lend their support to the renewed efforts of school leaders to re-establish baseball as an important intercollegiate sport.

A year ago professional baseball major and minor leagues and the National High School Federation signed an agreement which prohibits any professional baseball club from entering into an agreement with a high school student. The agreement goes even farther and forbids any type of contact until the student's class graduates.

Individuals interested in providing wholesome physical activity to engage the youth of the country are becoming increasingly cognizant of the value of baseball as an outdoor activity which has a definite appeal to youth. It has been demonstrated time and time again that boys are eager to play the game if given the opportunity. Probably no other sport utilizes the natural activity urges of man as does baseball and it deserves the enthusiastic support of everyone interested in the development of a healthy sports program for the youth of our land.



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Choosing and Developing High School Low Hurdlers

By Philip A. Knuth

Track Coach, Robert E. Lee High School, Jacksonville, Florida

PHILIP KNUTH, track coach at Lee High School, Jacksonville, Florida, introduced to Journal readers last year, has a record of having coached winning track teams in twenty-seven consecutive meets. His teams have placed in the low hurdles in the state meet each year.

ONE of the most difficult jobs facing a high school track and field coach is finding and developing hurdlers. Hurdling is a very exacting event and requires proper technique, perfecting of form, sprinting speed, and plenty of competitive courage.

In order to obtain satisfactory results with the low hurdlers, a coach must, first of all, have a clear-cut idea concerning the type of boys who are most likely to achieve success. No particular type of build is required for a low hurdler. Like sprinters they may be of many types for their chief requirement is speed along with a certain amount of body agility.

First of all, it is obvious that the candidates must possess speed, for the low-hurdle race is really a two-hundred yard sprint with ten barriers laid across the path. Not only must the candidate possess speed, but he must also desire to be a hurdler. He must have a genuine interest for this event. Most, if not all, low hurdlers would be, or are good sprint men, but not all sprint men make good low hurdlers. The coach can do much to create interest in, and desire for, the low hurdles, but the boys themselves must be convinced in their own minds that they are hurdlers before they will go all out and become better than the average boy.

Form over the low hurdles is important but not nearly so necessary as in the highs. Perfect hurdle technique over the lows will never make a champion unless he also possesses sprinting speed.

We high school coaches meet up with a big problem in selecting material for the low hurdles. Good sprinters are limited and to take the fast boys from the sprints and use them in the low hurdles is bound to weaken the sprints and relays. Most high school coaches striving to build a well-balanced track and field team cannot afford to take their fastest sprinters and place them in the lows. With their limited material, they must be content with taking fairly fast boys, capable of running fair quarter miles, and through hard work and practice, teach them hurdle technique and build up their speed as much as possible.

Low hurdlers do not need to be as supple and limber as high hurdlers nor do they need to be as tall and high split. The form used in the lows is about the same as in the highs, but the technique does not need to be as exacting. A good high hurdler must learn to just clear the top of the barrier; whereas, in the lows this is not necessary thus, eliminating a pronounced body lean. The keynote of the lows is more sprinting and less hurdling. The boys should learn to run the race as though there were no barriers to cross.

After selecting the boys with whom we are to work, we must get them in condition and then teach them how to run the race, starting, clearing the barriers, sprinting between the barriers, and the finish.

The first three or four weeks should be spent on conditioning and teaching them how to run. Very few boys have natural running form and hence, must be taught such things as body lean, body carriage, arm action, head carriage and straight-ahead foot motion. Along with conditioning and running technique, considerable time should be spent on hurdle exercises and these should be continued daily throughout the entire season as low hurdlers need many bending and stretching exercises to develop and retain the necessary body agility. One of the best exercises for hurdlers is to sit on the ground, assuming the position of clearing a hurdle, bend forward and downward as far as possible, bringing the chest down to the thigh. Other good exercises are the wood chopper, the split, kicking and bouncing, parallel bar work.

As soon as the candidates are able to run with some semblance of form, it is time to teach them how to hurdle. We begin work on the grass with just one hurdle as there is no need of working with more than one until the technique has been developed. We work on such things as body lean, length of stride, arm action, leg position, balance, taking off, landing, and taking the first stride. These techniques must be worked on until hurdle form is obtained.

At the beginning, a boy may approach the barrier anyway he pleases; we do not insist upon the regulation eighteen-yard distance to the first hurdle. We teach them how to cross the barrier with as much speed and as little loss of time as possible. In going over the hurdle, the boy should bring up the lead foot with knee bent slightly and swing the forward foot down quickly after clearing the barrier. The length of the take-off step varies

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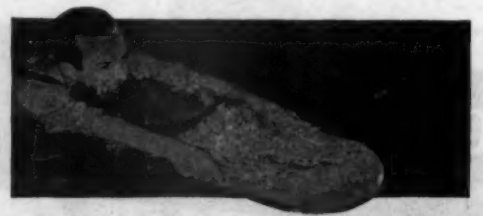

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with different boys, long-legged boys usually taking shorter strides since they can practically step over the barrier. Shorter legged boys need a longer leap to clear the hurdle and to cover the distance between the barriers in seven steps.

Hurdle form should be practiced with only one hurdle for a considerable time. When the candidate can run over the first barrier at full speed and with plenty of confidence, then and only then is he ready to have two more barriers added to the practice session.

Now we are ready to go to the track, and using three hurdles, we begin with the regulation eighteen-yard approach to the first hurdle. Here we are confronted with one of our most difficult tasks, getting the boy started out of the hole and up to the first barrier at top most speed. Considerable time must be spent upon this approach.

The starting procedure for hurdlers is the same as for the sprinters except that they must rise to a running position sooner because of the barriers to be cleared.

A fast start and sprint to the first barrier are necessary to gain the momentum needed, and the beginner must practice until he can cover the distance to the first barrier driving at near top-speed. If the first barrier is taken with correct form, full speed will be developed by the time the second barrier is reached.

Beginners also must practice seven strides between the barriers. It may take eight or nine at first but should be cut to seven as quickly as possible. Some few boys are unable to make it in seven strides and use eight, but then the take-off leg must be alternated and hence, their degree of success is limited.

As soon as he is capable of running three hurdles, much practice should be spent on evenness of stride. His stride must be perfect and never vary so that each seventh stride will bring him to the same take-off spot at every hurdle.

At this time, we also practice what I term "tracking." We smooth the track between the barriers before and after each boy runs the flight of three hurdles and check the landing position of the feet between the barriers as each boy runs. We work on this until each boy attains a straight forward running position of the foot on each stride.

A flight of three hurdles is plenty for most practice sessions. It is not necessary for a boy to run a full flight often as the skill and effectiveness developed over the first three will carry him over the remaining barriers in fine stead.

It is important that the coach caution the hurdler, when running the full flight, to run one barrier at a time and take them as they come and never, never look for his opponents. Hurdlers must concentrate on running their own flight of barriers at top speed, never letting down. As soon

(Continued on page 62)

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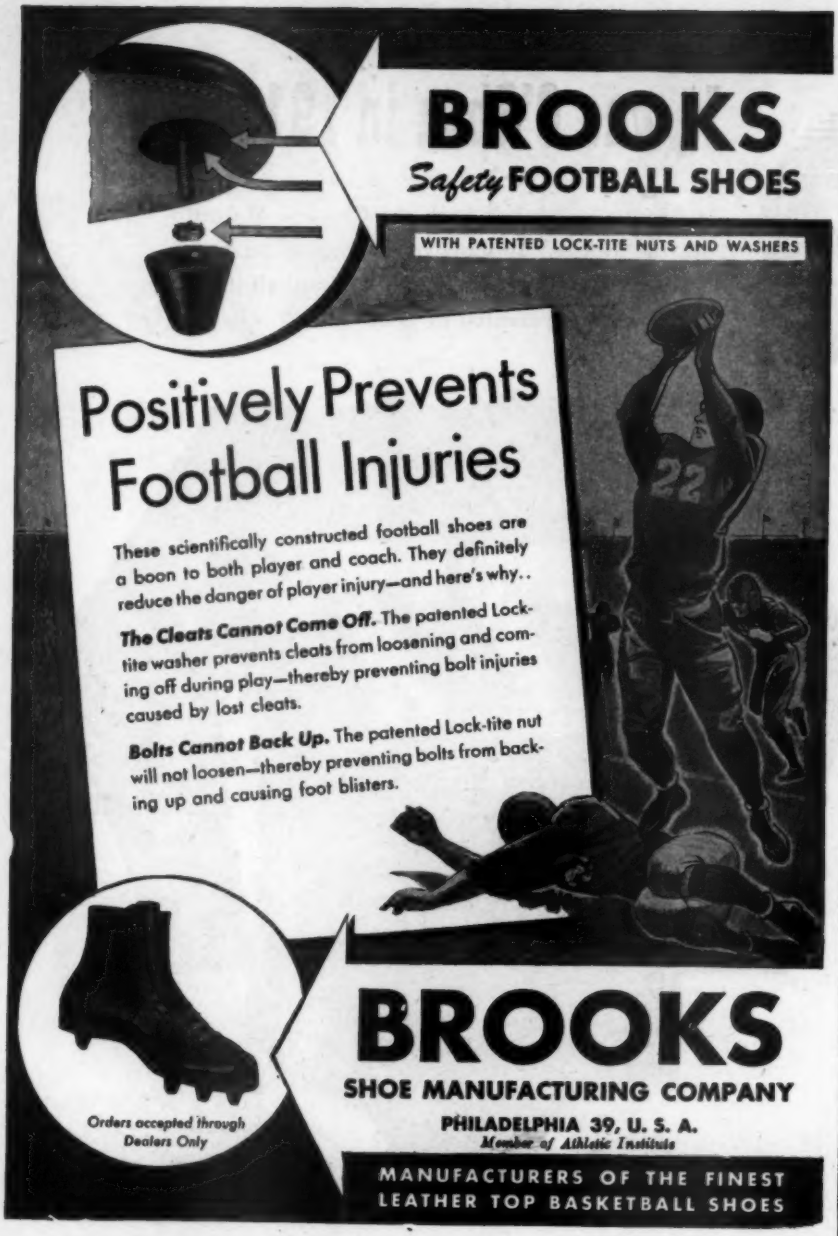
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(Continued from page 5)

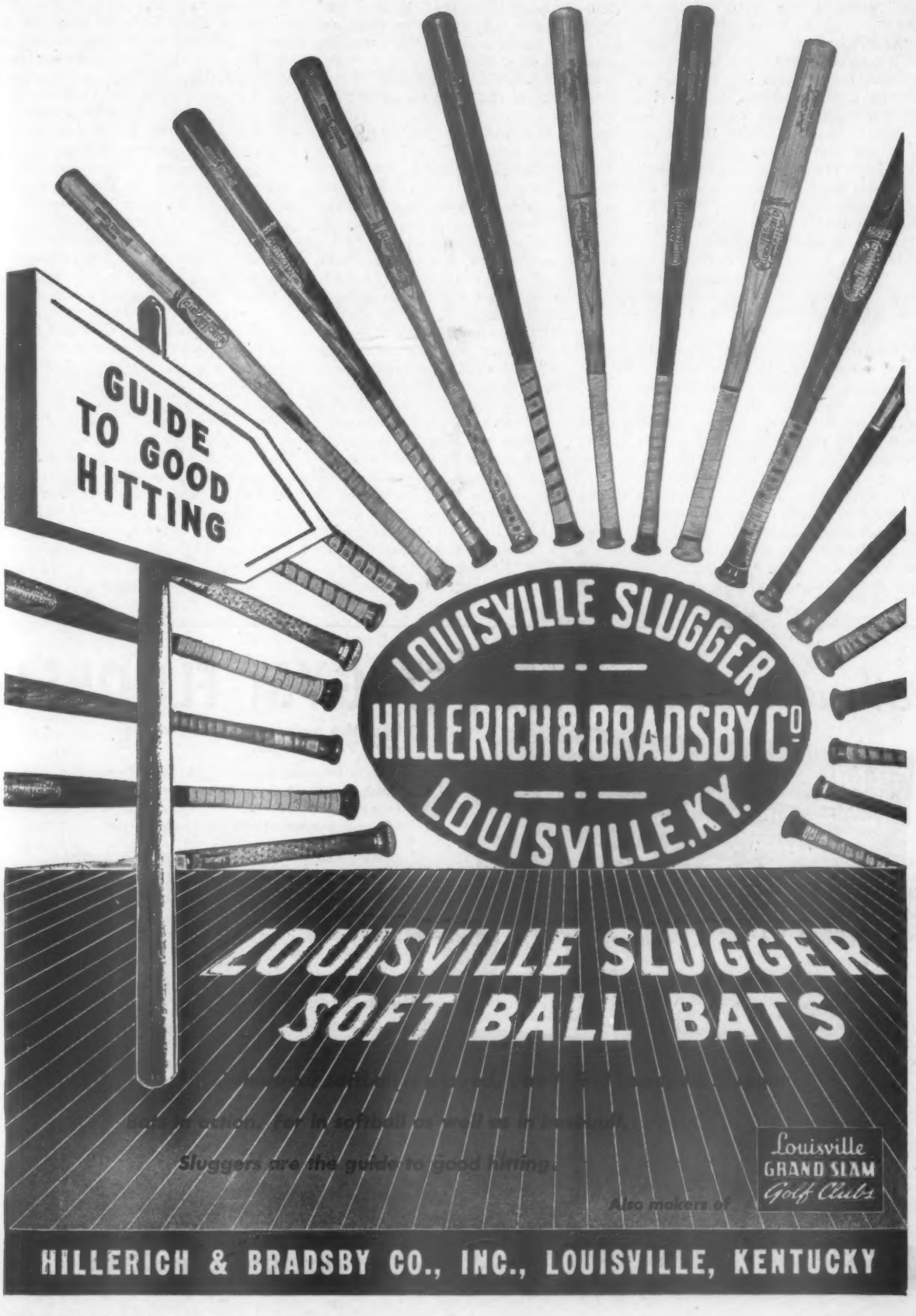
distributor for the Investors' Syndicate. "Vee's" successor at Drake is Al Kawal, Northwestern football great and more recently assistant at Michigan State . . . Forest (Whitey) Baccus has resigned as basketball coach at S. M. U. to enter business . . . Western State Teachers College, Bowling Green, Kentucky is the latest school to light its stadium. The field which is shared by Bowling Green High School was illuminated by General Electric . . . The Ohio Association of Track Coaches will hold their annual Clinic at the Mens' Gymnasium, Columbus, April 12.

* * *

UP AT East Lansing they tell the story about the student who walked into Karl Schlademan's office with the remark, "I am interested in going to Michigan State, and as I would also like to go out for track I came to see you." Karl noticed the discharge button in his lapel and replied, "Better see the Veterans Administration officer down the street," and as a parting shot, "What is your specialty"? The youth replied, "Oh I guess the broad jump. They gave me this watch last year at the Penn Relays where I competed as an independent from my army camp." Karl grabbed his hat and said, "On second thought, I'll take you over myself." The athlete in question was Fred Johnson who won the broad jump at the Michigan State Relays and holds the field house record with a jump of 24 feet, 4⅜ inches . . . Bob Davis, Kentucky star, has been named head football coach at Fort Devins, Massachusetts State College. His assistants, Ronnie Cahill, Holy Cross, Tom Carey, Brown, and Bill Stewart, Notre Dame . . . A recent survey by the National Federation shows that high school baseball is coming back strong. Georgia leads the parade with a 300 per cent increase. In the 100 per cent bracket are Mississippi and West Virginia. Illinois, South Dakota, Wyoming, Kentucky, Louisiana, Minnesota and Nebraska have all shown better than a 25 per cent increase . . . Johnny Del Isola, former line coach at Dartmouth and recently line coach of the Boston Yanks will return to Dartmouth to succeed George Barclay.

* * *

THE National Federation has appointed a committee to develop a "Philosophy of Athletics" for use in member states and schools. . . . Eddie Doherty, backfield coach at Notre Dame and Boston College goes to Arizona State College as head football coach. . . . The Big Six now has three Nebraska graduates as head coaches; Bernie Masterson at his alma mater, George Sauer at Kansas and Sam Francis at Kansas State College. . . . The Michigan High School Association will sell the broadcast rights for its tourna-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ment games. Direct telephone reports, however, to gymnasiums of competing schools will be permitted. . . . Michigan took a vote of schools in the Upper Peninsula on the question of consolidating with the Lower Peninsula on the 1948 basketball tournament. The vote was 31 for and 15 opposed among the schools within the same classifications as the Lower Peninsula schools. . . . When Jack MacDonald decided to devote all his time to being athletic director and basketball coach at Hofstra College, Jack Smith was elevated to the head football spot. Smith has been an assistant at Hofstra since 1937. . . . Lewis Newton, coach at White Plains, New York, High School has been appointed assistant coach at Syracuse.

* * *

CLEARING HOUSE for Coaches—An outstanding Southern university is looking for a coach who can handle both track and swimming. Applications and qualifications should be forwarded to this column. The number of applications is far exceeding the supply of available positions and it is thought best to declare a month moratorium until more positions are available. There will be no applications listed after these until the May issue. . . . No. 10 has had considerable professional experience and is interested in high school or prep school in South or Southwest. Football, basketball, baseball, boxing and track. Twenty-seven years old. . . . No. 11 has had two years coaching experience in a Michigan class B school. Football, basketball, track and physical education. A war veteran and is interested in a position in New England or upstate New York. . . . No. 12 is thirty years old, a graduate of a Pennsylvania Teachers College, and has coached for six years in a Pennsylvania high school in the following fields, football, basketball and baseball. Teaches health, physical education and civics. Is interested in a position near a university in order to do graduate work. . . . No. 13 has had no school coaching experience, but served as an athletic instructor in the navy physical fitness program. Graduate of Springfield College. . . . No. 14 is twenty-seven years old, was an All-Missouri Valley Conference guard during his undergraduate days at Tulsa. Is at present head football and basketball coach and director of physical education in an Oklahoma high school. His football record last year was eight wins, one loss. Has had semi-pro baseball experience and can help out in that sport if need be. Is interested in a college or junior college position. . . . No. 15 is a graduate of Dubuque University with graduate honors from Drake. Flew sixty-four missions as navigator in the Army Air Forces. Five years coaching experience in high schools in football, basketball and track. Is at present, director of athletics as well as coach at his school. Is interested in a large high school or college near university where graduate work may be taken. . . . No. 16 has had considerable experience coaching football, basketball, baseball and track for two years in high schools and one year in junior college. Spent three and a half years in the Tunney program, is at present working toward master's degree in health and physical education at Columbia, and will be available last of August. Desirous of a junior college or small college position in coaching and training work. Locality doesn't matter. . . . No. 17 an assistant trainer at one of the large well-known Eastern universities is interested in head trainer's job in university, college or prep school. A graduate in physiotherapy, doing that type of work for three years in the army in the states and overseas. Can assist as coach in swimming and wrestling. Thirty-two years of age. . . . No. 18 is a graduate of a Missouri Teachers College with graduate work at Colorado. For past four years has been coaching football, basketball and track in Iowa high schools. Is interested in moving his family to a Western state, and would like a high school position in that section of the country.

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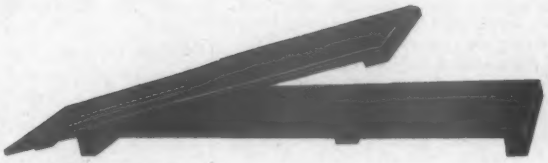

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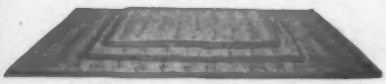

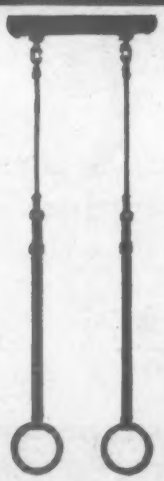

Increasing Interest in Wrestling

By George A. James

Wrestling Coach, Loomis Institute, Windsor, Connecticut

GEORGE A. JAMES is a graduate of Springfield College where he was captain of the wrestling team and New England A.A.U. champion. Since entering the physical education field, he has coached Y.M.C.A., high school and college wrestling teams. He coached wrestling at Trinity College for several years and was special instructor in wrestling when the Navy V-12 program was at Trinity. At the present time he is wrestling coach at Loomis Institute, a preparatory school at Windsor, Connecticut.

IF THE wrestling coaches and the National Rules Committee are really sincere in their desire to increase the popularity of intercollegiate and interscholastic wrestling and eliminate stalling and dull, uninteresting wrestling, they can accomplish their avowed purpose by a simple expedient. It cannot be done by adding more rules to an all-ready too-complicated code, but by the simple act of boosting the point value of a fall. By awarding ten points for a fall instead of five, the coaches will be forced to teach their men to wrestle and insist that the wrestlers go out on the mat and try for falls instead of stalling, riding, letting their men go just to acquire points for a three-point decision. The resulting bouts are sure to produce real wrestling full of action and plenty of spectator interest.

The present code is too complicated and suffers from too great a variety of interpretations by officials, referees, coaches, and the wrestlers. It tends to lead to a situation known as "refereeitis" which often spoils matches and leaves the contestants, coaches, and spectators bewildered at what has happened. In their attempt to eliminate stalling, which they said was spoiling the old amateur wrestling game, the National Rules Committee seems to have overlooked the original object of the sport, that is, the securing of falls.

Football has grown and maintained its tremendous popularity because the original objective of the game, to secure touchdowns, has never been overlooked. Every rule that has been formulated encourages and facilitates this objective and makes sure that the teams strive continuously towards that objective. The point value of a touchdown is greater than that of any other means of scoring. No points are given for securing a certain number of first downs. It is the touchdown that really counts.

The same basic idea should apply to wrestling. If it did, the game would soon become popular because the wrestlers would be free to use their initiative, their own strategy, and really wrestle, and spectators would be treated to some interesting and exciting action. A prominent wrestling coach recently wrote an article called "The New Style of Wrestling." He is correct in stating that a new style of wrestling is developing, a new style of stalling, riding, point collecting, that is producing dull bouts, restricting initiative which is lacking in action, and devoid of spectator interest. Contestant and spectator alike are dissatisfied with this "new style." As a wrestling coach of many years' experience, I too am dissatisfied. In reading the results of dual matches, one

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is struck immediately with the almost total absence of a single fall in an entire match. Nothing but points and decisions. After having witnessed many of these dull and uninteresting affairs, I can no longer wonder at the lack of appeal to contestants and lack of interest of spectators.

There is nothing wrong with wrestling that could not be remedied quickly and easily. Various wrestling coaches have worried about this situation and experimented with their own squads to see what could be done. Their conclusions seem to run along about the same line. The boys want more action and better success with less complicated restrictions, while the spectators want action and also demand to know what it is all about. When the boys are allowed to wrestle and go after falls, the action increases and the spectator interest soon fans itself into a sizable flame.

During the last war, the writer was one of those in charge of physical training of a Navy V-12 unit at Trinity College and was special instructor in wrestling under the navy program. Twice each month the entire battalion assembled in the gymnasium to witness a "Happy Hour" composed of a program of boxing and wrestling bouts. The wrestling bouts started out to be governed by the intercollegiate wrestling rules. The first two bouts proved to be so dull and uninteresting that the sailors were soon whistling and shouting for action. The wrestling part of the program seemed about to become a fizzle. Something had to be done quickly. After a hurried conference with the physical training officers and wrestlers, it was decided to eliminate the point system and, while retaining all the other amateur rules, insist on the men wrestling for falls. The wrestlers were well trained, in good condition and willing to work. The remaining bouts proved to be aggressive and exciting affairs which soon had the sailors cheering. All subsequent exhibitions were run off under similar rules and proved most satisfactory. The spectators, the officials, and the wrestlers themselves all voiced their satisfaction and approval for there were fast action and exciting falls. Not one competitor suffered a single injury under this sort of speeded-up code. It proved to me that there is nothing wrong with wrestling in itself, but that it is a sport suffering from too much emphasis on the wrong thing with the present restrictions.

My suggested remedy for a situation that is acknowledged and recognized by many coaches, is to increase the point value for a fall and thus focus the attention of the coaches, officials, wrestlers, and spectators back to the original objective of wrestling, the securing of falls. The result will be real wrestling, fast action, and plenty of exciting falls. The competitor interest and popularity will increase, as will spectator interest.

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IN 1897 ATHLETICS HAD THEIR MOMENTS of excitement, too . . . in Football, Harvard defeated Brown . . . Princeton beat Cornell . . . and, Yale stole the show by placing four men on the All-American Team—Chamberlain, Hall, Brown and DeSaulles . . . other All-American members were Hare, Outland and Minds of Penn . . . Doucette and Debbles of Harvard . . . and Cochran and Kelly of Princeton. Those were the days when a field goal was good for 5 points . . . with a touchdown at 6 points.

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Characteristics That Make Good Batters

(Continued from page 30)

bunch against them. If a batter hits to the left field mostly, the defensive team will shift its fielders toward that area, thus covering more of his base-hit area, and decreasing his chances of getting many base hits and becoming a good hitter. Some good hitters, who pull the ball toward one field most of the time, might be better hitters if they hit to all fields.

A case in point along these lines revolves around Ted Williams, great Boston slugger, whose meager success in the 1946 World Series was due in part to the defensive shift employed against him by the St. Louis Cardinals. The Cleveland Indians were fairly successful in employing a defensive shift against this same player during the latter part of the 1946 season.

The writer can well recall one player, who, during his playing days in a Class-A minor league, was hitting .370 at mid-season. He was definitely a right-handed pull hitter all the time, and when the defensive teams shifted to the left-field side on him during the second half of the season, his batting average dropped below .300 for the season, even though he continued to hit the ball hard.

Furthermore, we cannot overlook the reaction of such a shift on the batter's mental make-up. Many prospective good batters are mentally ruined, due to their inability to hit to all fields when the defense bunches toward one field against them. They often become "panicky" and then discouraged when line drives that ordinarily would fall for base hits are caught by fielders who are playing away from their normal positions toward the hitter's base-hit area. It should be stated, however, that most coaches and managers will not tamper with a batter's style so long as that batter is successful in getting his share of base hits.

Many Good Batters Can Hit Behind the Runner

It is my belief that many hitters become good batters when they learn to hit behind the runner. When this is accomplished, a batter then has the advantage of keeping the fielders from bunching, or keeping the defensive infield guessing as to what the batter's intentions are, and it keeps the pitcher in an uncertain state of mind in regard to what pitch to throw next. I further believe that hitting behind the runner helps make a good batter, because in this batting maneuver, the batsman must keep his eyes on the ball and follow it a little longer in order to be suc-

cessful in carrying out his intentions. Following the ball a little longer is theoretically and actually a good technique in becoming a good hitter. It is part of the batting process in the hit-and-run play (hitting behind the runner). Thus it might be said that good hitters usually can hit behind the runner, and batters who can hit behind the runner usually make good hitters.

Good Batters Use Good Batting Techniques

Most players are well acquainted with proper batting techniques through observation, discussion, and application. The favorite topic for discussion in all baseball dugouts revolves around batting. While one team is taking batting practice, the opponents often will be seated in their own dugout observing and discussing each batter's style and techniques. Ambitious hitters are always looking for, and trying to learn about, some additional technique that will improve their batting.

When a batter goes into a batting slump, the first thing of which he takes an inventory, is his technique in hitting. He reviews his stance, stride, and swing. He makes sure he is watching the ball well, and even mentally reviews all that he has learned about batting to try to uncover his faults. He realizes the value of good techniques in proper batting, and has learned that good batting is the result of applying good techniques.

Good Hitters Get As Much Batting Practice As Possible

Good hitters must have more practice than just game hitting. They try to get as much batting practice as possible. I have often seen good hitters who cannot resist the temptation to hit, hit, and hit again. In "pepper" games they like to have the fielders play a little farther away so that they can hit harder. They are not satisfied with the warm-up drill that a "pepper" game affords. They want to *hit*. Watch a batting practice session of a major league club, and what do you see? The good hitters are always hanging around home plate with a bat in their hands. Some are leaning against the batting cage studying hitters, while awaiting their turn. Should the next hitter in batting practice take as much as five seconds in assuming his place at the plate, he will see two or three good hitters jump into the batter's box to get an extra "cut" at the ball.

I have often seen major league players report to the ball park to work out on their day off. Almost always, the work-out consisted of one small group of the better hitters, plus a rookie pitcher or two. I have seen them make arrangements the day previous with adolescent boys, whom they did not even know, to chase balls

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and field for them. Is it any wonder that this type of player makes a good hitter of himself? By getting more batting practice than the others, he develops into a better hitter than the other players. Moreover, once hitters become good, they follow the formula for remaining good hitters. They continue to hit, hit and *hit*.

Good Hitters Have the Batting Practice Pitcher Put Something on the Ball

To be satisfied with hitting a half-speed pitch that is lobbed up to the plate is similar to getting great satisfaction out of being a .200 hitter. Although hitting at slow, easy pitching is good for preliminary or early-season drill, it cannot develop good hitters over a season's play. Good hitters never get *complete satisfaction* in hitting, and only become satisfied at the moment if they can hit successfully the best throws the pitcher has to offer. Many good hitters do not care to hit at easy tosses. They see no signs of a challenge, and no means of accomplishment. They want their batting practice to be as similar to game conditions as possible. They want the pitcher to put something on the fast ball; they occasionally want to see the curve ball and change of pace. Sometimes they will ask the pitcher to mix up his pitches without telling which pitch is coming next. In this way the batter has to extend himself, and thus makes progress toward being familiar with, and ready for, all types of pitches.

Good Hitters Have the Pitchers Throw to Their Weaknesses During Practice

The best way for a player to develop hitting strength is to cure his weaknesses. Once the opposition has spotted a weakness in a player's hitting, there is no sympathy toward that weakness. Ambitious batters keep working against their weaknesses. They get team mates to go out to the park in their spare time with them, and get them to throw to their weaknesses. In each batting practice prior to game time, and before the opposing team arrives, this type of hitter will often ask the pitcher to throw to a certain spot, or to throw certain types of pitches. In this way the hitter practices against his weakness without the opponents seeing what that weakness is. It might be well at this time to remember that *"you can't improve your batting strength without improving your weakness."*

Good Batters Know Where to Stand in the Box Against Different Types of Pitchers

Good hitters often adjust their position in the batter's box to different types of pitchers. They move up toward the front of the batter's box, when facing slow-ball pitchers, and they move back toward the rear of the box, when facing a consistently good fast "baller." They stand a little farther away from the plate when they know the pitcher is pitching them inside, and a little closer to it, than they ordinarily would, when the pitcher is pitching outside to them. Sometimes they will take their ordinary stance and then slyly adjust their foot position and stance so that it is hard for the opposition to detect it. Some really great hitters have had the ability to adjust the arm swing and bat (timing) without changing their foot position or stance. This method is preferable, but more difficult of accomplishment. Most good hitters find that they must adjust themselves in the batter's box to meet the type of pitching faced on each particular day.

Good Batters Work Toward Hitting Consistently

The best hitters are those who are consistent in their hitting. They are consistent throughout the season. They seldom go without a hit for days at a time, and they are not victims of long batting slumps. They hit successfully against all types of pitching, whether it be right- or left-handed, fast or slow, side-arm or overhand. Most hitters have their preferences

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and successes against certain types of pitching. Successful batters are those who have studied, practiced, and improved against the type of pitching they least prefer. I recall one greatly heralded minor league batting champion who came to the major leagues with a great reputation, and yet could not make the grade in the majors as a batter. A review of the minor league box scores showed that, although his batting average was very high, he was not a consistent hitter. He did not hit consistently against good pitching. He would get three hits in four times up in a game against a rookie or inexperienced pitcher, but would get only one hit in four or five times up against the more wily, and clever, experienced pitchers. Of course, his average was high in that league against that type of pitching, but his inconsistency at bat came to light when he had to hit against good pitching almost every day in the major leagues. As a rule, consistent hitters are good hitters regardless of whether they are sand-lot players, minor leaguers, or major league players.

Good Batters Know the Type of Bat to Use Against Different Types of Pitchers

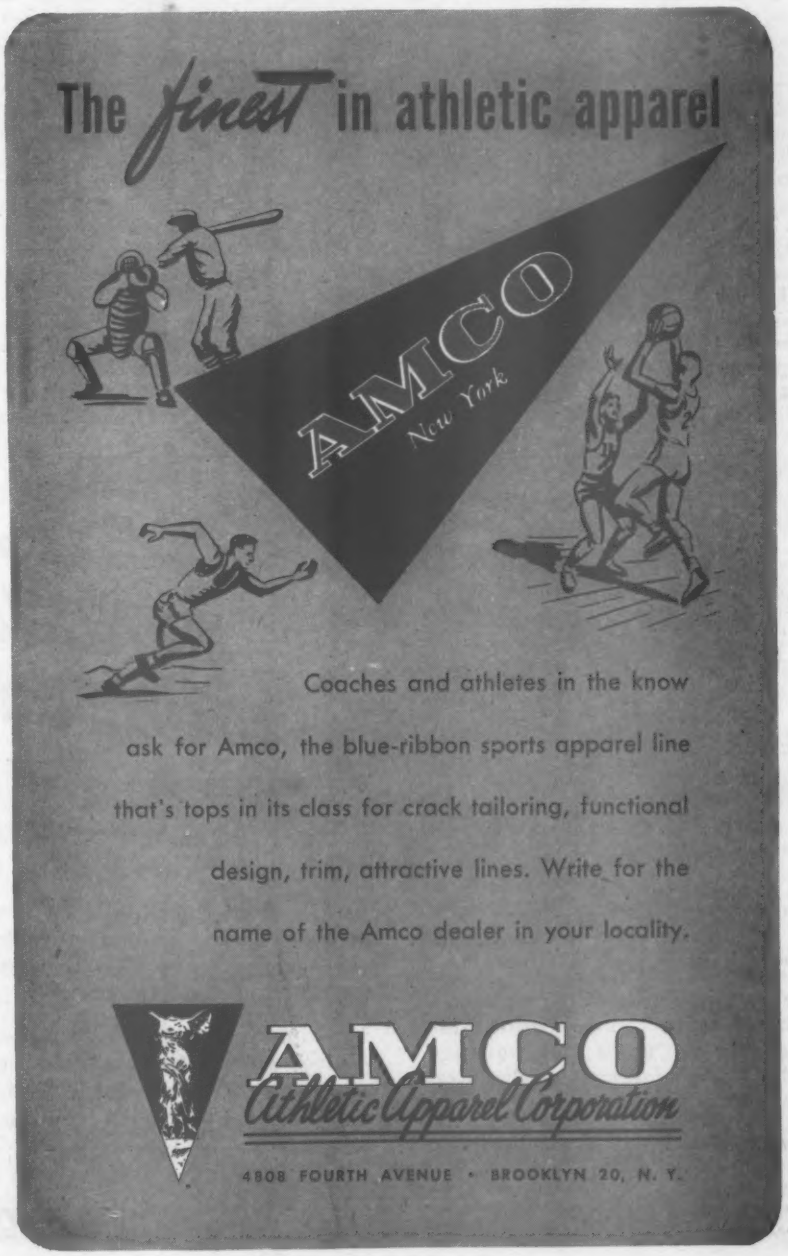
The topic of using different types of bats against different pitchers is a debatable one. Bill Terry, during the year in which he led the National League with a .401 batting average, used only two bats all season. This was unusual. Ty Cobb often went through a complete season using a mere handful of bats. These men, of course, were outstanding batters. They were "going good" at the time and followed the rule of not interfering in the least with their batting.

Let us concern ourselves with the ordinary run of players. Have you ever seen their lockers studded and sometimes crammed with a half-dozen to a couple of dozen bats? Have you noticed the number of bats in the bat rack for a ball game? Most players will have at least two or three different sizes and weights for their selection. They may use a medium heavy bat against consistent fall-ball pitching and a light one against the good curve "baller," or they may use a heavier type of bat against the slow-ball pitcher. Most hitters realize that, in order to become good hitters, they must be able to adjust themselves to the type of pitcher on the mound at each particular time that they step into the batter's box. Most hitters have difficulty making this adjustment. This is proved in the batting averages by the fact that there are comparatively few good hitters. The answer may be in the type of bat used.

A Good Batter Is Relaxed

Herein lies one of the most important factors in successful batting. As a matter of fact, the ability of an athlete to relax physically often is the determining factor in the degree of his success. Good athletes have learned that relaxed muscles are loose and accurate, while tense muscles are tight and inaccurate. By relaxing in the box, the batter maintains a looseness in his arm muscles that leads to a loose, free, easy swing. This loose, free swing is necessary for proper body balance and timing. Without these, good batting is impossible. I have seen many inexperienced players take strained muscular positions in the batter's box. Many times these same players will show their muscular tenseness by the way they take their preliminary swings, prior to the pitch. Good batters are relaxed from the time they step into the box until a split second before impact between bat and ball. At this time the wrists should be stiff and tense to get maximum arm power behind the bat. Some batters are relaxed in spots; that is, while taking the grip on the bat, the stance, the preliminary swings, or the stride. This interferes with maximum success in batting. Batting relaxation is all inclusive and should be coordinated with the entire batting process. It should not be broken up into parts any more than the batting process can be broken up into parts in a ball game.

(Concluded in April issue)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NEW FILMS

VISUAL education has become so popular that a great number of films on sports and athletics have recently been produced.

In order to better group these films by sports, we have discussed baseball films in the February and this issue. Next month track films will be reviewed.

Encyclopaedia Britannica Films

Continuing their excellent selection of athletic films, Encyclopaedia Britannica has produced three new baseball films, and what a job they have done!

In each of the films that master technician Jimmy Dykes has collaborated with no less an authority than Hollis Thurston, coach of the Hollywood Baseball Team. The members of the Hollywood Club act as models. The films are each of one reel length, black and white with sound and are supervised by Norman Sper, who did such a remarkable job on the football and basketball films.

We like the thoroughness in which the films are handled. In the first film, *Catching in Baseball*, attention is devoted to the finer points of the art with repeated emphasis on the fact that a two-handed catch is much the safer, and preferred to the more spectacular one-handed stab. In this film as in the others, practice is the keynote—that is practice over and over again of the basic fundamentals is what makes the star. In *Throwing in Baseball*, good use is made of slow motion and stop action to illustrate what makes for accurate throws. Again we liked from a coaching viewpoint the admonition against other than pitcher's throwing curves. The third film, *Hitting in Baseball*, devotes attention to the important phases of plate coverage, wrist and hip action, the swing, strike zone, etc.

Single films may be purchased for $50.00 less ten per cent, but the full series at $135.00 is a complete package of baseball fundamentals. Accurate and thorough sum up these films. Complete information is available from Encyclopaedia Britannica Films, Inc., Dept. 63-C, 20 North Wacker Drive, Chicago 6, Illinois.

Curriculum Films

Curriculum Films has come up with another excellent series of film strips, this one on baseball. These ten strips are produced in full color under the direction of Ethan Allen, head baseball coach at Yale University, and one of the foremost baseball authorities in the country. The strips are on 35-mm film with 500 frames and include the *Coaches Manual* written by Ethan Allen.

In directing the film strips, Allen used such stars as Feller, Williams, Kurowski, Mize and a host of others to show in detail the finer points of baseball. Batting receives careful discussion and all the various forms of batting are portrayed. Handling the infield chores are Kurowski, Rolfe, Cavaretta, Marion and others. Bob Feller heads up the pitching department

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Other Baseball Films

Batting Fundamentals — Coronet Instructional Films, 65 East South Water Street, Chicago 1, Illinois. Reviewed in February issue.

Catching Fundamentals — Coronet Instructional Films, 65 East South Water Street, Chicago 1, Illinois. Reviewed in February issue.

Play Ball Son—Young America Films, 18 East 41st Street, New York 17, New York. Reviewed in February issue.

The World Series of 1946 and the All-Star Game—Co-sponsored by Hillerich and Bradsby and A. G. Spalding and Bros. Reviewed in February issue.

Tools of the Trade

(Continued from page 28)

our three classes of youngsters, we might designate the areas and describe them as follows:

CHILDREN YOUTHS ADULTS
Divided according to grade in school.

Grades 3 to 6 | Grades 6 to 10 | Grades 10 and up

A second method would be to divide them according to age.

Ages 6 to 11 Ages 10 to 15 Ages 14 and up

A third technique of division could be made on weight.*

Weight	Weight	Weight
55 to 90 (Boys)	80 to 135	125 and up
55 to 80 (Girls)	70 to 120	120 and up

A certain amount of overlap must be allowed, as indicated, in classifications made according to age or weight.

An extensive survey of the field and considerable library research on the subject of adapting athletic supplies to any specific needs have failed to disclose much material of value. It rather looks as though this matter of modifying athletic equipment on a scientific basis for use of elementary school pupils is virgin territory for experimentation. For that reason a selected bibliography must be sacrificed for a more general list of references.

* Weight is measured in pounds.

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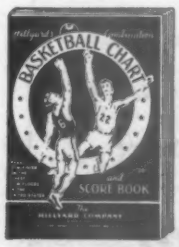

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It seems strange that some sporting-goods house has not accepted the challenge offered by this area. It would seem that there was considerable commercial value connected with organizing a logical division of ages or anthropometric indices and the developing of a corresponding standardization of athletic equipment. A significant step in this general direction is being taken by the Athletic Institute under the direction of Theodore Bank. The Athletic Institute which is a non-profit organization, devoted to the promotion of sports and recreation is vitally interested in this problem. It is hoped that they will explore the desirability of adapting future athletic equipment more closely to the needs of younger sportsmen.

The tables of sports equipment for children that are published at this time consist mainly of listings of specifications of purchasing standards. This includes cost, size, weight, shape, construction, material, and various other items concerned with the manufacturing process. However, these lists are not modified for the younger patrons. The specifications given, in most cases, are exactly what would be expected for high school or college programs.

In accordance with our over-all goal in exercise, to secure maximum output of energy, the chief reason for modifying athletic equipment and graduating it to the proper specifications for youngsters, must be obvious. With the right type and correct size tools the mechanic works harder, faster, and more efficiently. Under proper tutoring and with appropriate texts, the student learns rapidly, effectively, and without strain. Exactly the same analogy may be applied to the boy or girl indulging in physical education and recreation. With the proper tools of the trade—the correctly styled catcher's mitt, the tennis racket of appropriate weight, the football of the right size, etc.—the youngsters will play safely, strive harder, and enjoy themselves far more than when burdened with adult, oversized, overweight sports equipment. With the desired condition of maximum participation in pleasant recreation favorably influencing our exercise objective, we are well along the road to achieving our aim of promoting pupil health.

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We may then anticipate that one of the components of healthful living is operating on a scientific plane where previously its status was doubtful. Let us assume that the other items (nutrition, rest, immunity) are already on this plane. With all four recognized, emphasized, and put into the daily regimen of children (in their legitimate order) how can our children be other than the perfect specimens for which we strive.

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Progress and Essentials in the Development of Broad Jumpers

(Continued from page 24)

or eight weeks of general body conditioning. The training schedule of a broad jumper should be considered in three periods. The early season work should consist mainly of body building and conditioning exercises—heel and toe lifting, hopping off the take-off foot, jogging, striding, stretching, and all types of leg-strengthening exercises. Take-off practice with short approach. Running over three low hurdles to develop a rhythmic stride.

The second part of the preliminary season is the time when the hardest training should be done. In this period, form and skill are stressed. It calls for actual jumping to perfect the approach, the take-off, the flight, and landing. Even in this period, the actual jumping should not be oftener than twice a week. Before the competitive season starts, a competitor should rest a week. From then on it is best to confine the actual jumping to the weekly meets.

Suggested Weekly Schedule of Work During Competing Season

The aim during this period is to hold form and keep increasing strength and speed, and for that reason most of the practice period should be spent with the sprinters.

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Covers selection of a bat, the stance, the grip, the stride, the swing, the follow-through and bunting. Proper form for each is demonstrated by players noted for their correct form. Produced under supervision of James Smilgoff, Instructor, Chicago Cubs Training Camp, and Baseball Coach, Chicago Public Schools.

CATCHING FUNDAMENTALS

Stressing the catcher as important for coordinating team play, this film presents essential catching skills of stance, footwork, signals, catching high fouls, fielding bunts and backing up first base. Educational collaborator, James Smilgoff; Technical Advisor, Mike Tresh, star catcher, Chicago White Sox, who appears in film.

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The techniques of various kinds of traps, dribbles and passes are clearly shown in this film, demonstrating the basic skills of soccer in game-like situations. Produced at New Jersey State Teachers College at Trenton, under supervision of Miss Marjorie Fish, of that institution. Closeups and slow motion clearly show details.

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Monday: Start by jogging a lap. Spend ten minutes on body building, stretching and suppling exercises, hopping, inverted running. Work with the sprinters, running short sprints of thirty to fifty yards Finish up by jogging a quarter.

Tuesday: Spend fifteen or twenty minutes with the usual loosening-up work. Alternate jogging, walking and sprinting, body exercises of stretching. Perfect the take-off by running through the approach three or four times at top speed. Then take three or four jumps with a short run, emphasizing height and form. Run over two or three low hurdles to develop rhythmic stride.

Wednesday: Rest or easy work with the sprinters.

Thursday: Usual warm-up. Stretching exercises. Easy work with sprinters. Short sprints. Run through approach three or four times. No jumping. Finish up by striding an easy quarter.

Friday: Rest or light exercise.

Saturday: Competition.

Defensive Team Play

(Continued from page 14)

there is no attempted delayed stealing involved. It would retire a side and get a team out of a tight place if there were two out and a good hitter up. A pitch-out in this situation should be the rule and the defensive players must be on the alert. If the runner off second is a "cocky" lad, it also helps.

Defense Against Straightaway Hitting

"Chief defense is battery strategy. Size up the batter. Teams should know the kind of ball to be pitched. Outfield—Play deep for speed; closer for slow and curve balls. Right fielder—close for right-handed batter. Left fielder closer for left-handed batter. Shift toward first-base foul line for left-handed batters. Reverse for right-handed batters. Infielder—Play as deep as throwing ability will permit. Third baseman must be alert, however, for bunts. Shift somewhat as outfield does. Pay particular attention to kind of ball to be pitched."

In a nutshell we have the necessary information here. Again I would bring out the fact that the coach may well know his pitchers and what happens on their delivery so he can shift his men on that basis. We have faced pitchers once in a while who have a slow ball that may tantalize us for a few innings but if the pitching turns out to be somewhere between a good slow ball and an ordinary pitch we suddenly time it for extra base hits. This style pitcher should not try this with runners on base.

Battery strategy is the biggest item of defense against straightaway hitting. Any pitcher, who can make the batters hit the ball on the handle, cramp their swing so they do not get a good part of the bat on the ball, or place it so they miss the ball entirely, has good control and also knows what to pitch. He may have the control and his catcher may know the "stuff" and the pair become very successful. The pitcher must know (1) how the batter holds his bat—long, choke or spread grip; (2) where he stands in the box—close, middle box, rear box, etc.; (3) how he steps—toward the plate, parallel with the plate, or away; (4) whether the batter has any faults.

Battery strategy requires too much space to cover here, but the part of team defense in it may well enter into this if the entire infield has these four points in mind. They can note the way the batter holds his bat. It will tell the kind of hitting to expect. Where he stands in the box and how he steps also will be helpful. Batting faults also give the infielder ideas. They may well help the battery men when they come to the bench between innings if they have noted important facts about batters. The infield can note how the batter steps better than the pitcher who must focus his eyes on the ball in case it is hit. The infielder who fields the ball may not see how the batter stepped as he swung, but another infielder may be smart enough.

Defense Against Bunting

With No One On Base: The chief responsibility for the defense rests with the pitcher when a batter tries to lay a bunt safely. The third baseman must always be alert to field his position. Cobb used to try this system to get on base if he was not getting hits early in the game. The defensive team should watch out for fast runners when at bat. Some batters try bunting when they are lead-off hitters.

With Runner On First: "Pitcher keeps the ball where it will be hard to hit. Pitcher comes in fast after delivery. First baseman plays his base and comes in fast. Backs up first if he does not field the bunt. Third baseman plays in and comes in *fast*. Returns promptly to third if he does not field the bunt. Pitcher covers third if third baseman fields the bunt. Second baseman covers first. Pitcher, however, covers first on all hit balls and drag hits that first baseman goes after. Shortstop covers second. Watch for chance to get runner at second. Bunts that are fast or direct to pitcher go to second. Catcher should decide and call doubtful plays."

Some coaches like to have the high-strike pitched to the would-be bunter because so many batters, when they wheel around to lay the bunt, hold the bat low and have to bring it up smartly to meet the high pitch, and so are late and often foul the ball. Some want the low, fast ball. Once in a while it is good to pitch a perfect bunt ball and hope for a play at second base and perhaps a double play.

Another defensive tactic is to have the catcher signal for a "waste" ball and have the first baseman and third baseman come in fast on the pitch while the second baseman takes first and the throw from the catcher for a put-out of the runner playing off first.

Squeeze Play Defense

The pictures of Rucker out on an attempted squeeze play shown here give a very clear picture of the team play of the two most important players in the breaking up of this play. The catcher is shown astride his base and not out ahead of it where some young catchers seem to like to stay and let the runner slide in behind them. The toss from the pitcher comes in low enough to make the tagging of the runner easy. Berry's notes read as follows: "Bean the batter; throw a fast ball just above the batter's head. Keep the ball away from the batter. Use a slow wind-up; runner often starts too soon and gives away the play. Practically only defense is the pitcher. Play to first unless the bunt is fast or popped up."

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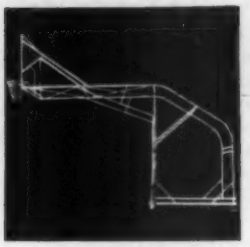
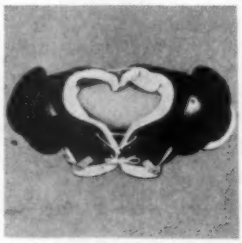


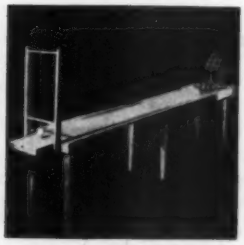
INQUIRY as to the manufacturer of the glass banks used at Nebraska, St. Louis, University of Colorado, Wyoming and others disclosed they were made by Dick Morey. The backstops are made by Bethlehem Steel, while the banks themselves are made by none other than Pittsburgh Plate Glass Company. Banks may be purchased separately or with backstops. A catalogue free on request tells the full story. Dick Morey, Inc., Abington, Massachusetts.

A COMPARATIVE newcomer to the line of athletic clothing, Amco Athletic Apparel Corporation has risen right to the top as purveyors of top-notch equipment. One of the most successful and popular items is this warm-up jacket which features Cohama Elkskin which is a practical and rugged fabric. It's water-repellent and weather-proof. Amco Athletic Apparel Corporation, 4818 Fourth Avenue, Brooklyn 20, New York.

THIS revolutionary design in shirt manufacturing is catching on like the proverbial prairie fire. The absence of any seams across the shoulders, plus a deep cut for the armpit prevents any binding whatever. The shirt referred to as, "Free For-All" certainly lives up to its name. Three major league teams are incorporating the principle in their baseball shirts. Available at sporting goods dealers or Wilson Sporting Goods Company, Chicago and New York.

THOSE looking for a sturdy, well constructed cantilever shoulder pad in the medium price range need look no farther than the Raleigh 128K. The pad is quilted and padded with 100-gauge cupped and molded fibre with spring steel in the arch. The flaps are bound with leather and it laces front and back. They're manufactured by that well-established reconditioning concern; the Raleigh Company, New Rochelle, New York. Catalogue and prices are available for the asking.





ONE of the most ingenious games we have come across in some time is Skill Bowl. The principle is to pull the ball back for sighting, upon swinging forward the cotter pin is disengaged and the ball is merrily on its way for a strike, spare, or what have you. It looks easy, but you will be amazed at the skill involved. An ideal activity for school recreation rooms, or varsity club rooms. Is readily folded for easy storage. Allied Plastics, Inc., 1220 Huron Road, Cleveland 15, Ohio.

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Choosing and Developing High School Low Hurdlers

(Continued from page 44)

as the final barrier is cleared, the hurdler should drive straight ahead *through* the tape, never just *to* it.

As soon as the candidates have developed running and hurdling form, then the development of speed and endurance, should be stressed in the practice sessions. The training schedule for the low hurdlers should be much the same as that for the quarter milers, but we must be careful not to overdo the endurance work at the expense of speed.

During the regular season, the low hurdlers need a diversified practice schedule. They need work over the hurdles to perfect their form, workouts with the sprint men on starts and short sprints to develop speed and work with the quarter milers to build stamina.

Riflery in the Colleges

(Continued from page 37)

18″ long, and 9″ wide and should be notched out to hold the muzzle and the stock of the rifle. This is the procedure used in sighting practice previously explained. Sometimes these boxes are used by the sight marker in place of the sighting board recommended heretofore.

SIGHT MARKERS: For conditioning purposes sighting practice is essential for the beginner. These markers consist of a 3″ piece of tin covered with white paper or paint and having a black bull's-eye in the center equal to approximately the size of the ten and nine ring on the scoring target. This is attached to a handle made of wood ½″ wide, ¼″ thick, and about 14″ long. There should be one for each target.

The response to riflery at Penn State has been most gratifying, in numbers, enjoyment, and results gained by those who participate. The thrill that comes to women students through improved scores and, finally, consistent straight shooting that will give competition to any able marksman is difficult to evaluate. Only the student can appraise it. It brings the same joy that comes to anyone who arrives at the level of creditable accomplishment. To the woman marksman it means that discipline, regimentation, steadiness, accuracy, exactness, coordination, precaution, poise have taken hold within her and have become inbred through hours of training and practice.

Federal Legislation

(Continued from page 26)

There are other bills, some of which are House bills that are similar to some of the above-mentioned bills.

With the above background the thought of those present turned to the proposed School Health, and Physical Education Act. This is the bill that the A.A.H.P.E. & R. has worked on for some time under the brilliant thinking of such leaders as Dr William L. Hughes of Temple and Dr LeRoy Mercer of Pennsylvania. The bill would provide twenty million dollars annually for grants in aid to the states under the following method of apportionment: The population of each state of the ages five to nineteen inclusive, multiplied by its percentage of economic need in relation to all the states having plans approved. The economic need is determined by that percentage which bears the same ratio to 50 per cent as the per capita income of the United States bears to the per capita income of the state in question. There are safeguards that no state's percentage can be greater than 66 2/3 per cent nor less than 25 per cent. This assures every state of being a recipient under the act. The bill provides that the funds received "shall be used to extend and improve instruction in health and physical education, to train personnel, to increase the amount, and to improve the quality of health advisory and guidance services performed as part of the school program, and to prevent, appraise, and refer for treatment, physical and mental disabilities of school-age children." The bill is to be administered through the Federal Security Administrator on the recommendation of the Commissioner of Education, the Surgeon General, and the Chief of the Children's Bureau. This group will determine when state plans have met the requirements.

The term physical education shall include all its phases including athletics, but not interscholastic athletics. The reason for that is because some states hold that it is unlawful to appropriate tax money for events at which gate receipts are collected. Recreation also was eliminated on the belief that it would further complicate the bill and lessen its chance of passage and also because of a disagreement among recreation forces over the type and need for federal legislation in that field.

Those assembled agreed to submit the bill to their various organizations. The bill is now having some minor revisions made. We will be most happy to send a copy of the bill to any of our readers who request one, and would certainly like to have our readers' reaction as to (1) the necessity for a bill of this type and (2) whether the bill in question fills the needs as they see it.

Our feeling is that a bill of this type will do an immense amount of good in a number of the states where health and physical education have been neglected from the state level. The bill should also do a tremendous amount of good within the states in co-ordinating and advising on the problems.

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MARCH, 1947

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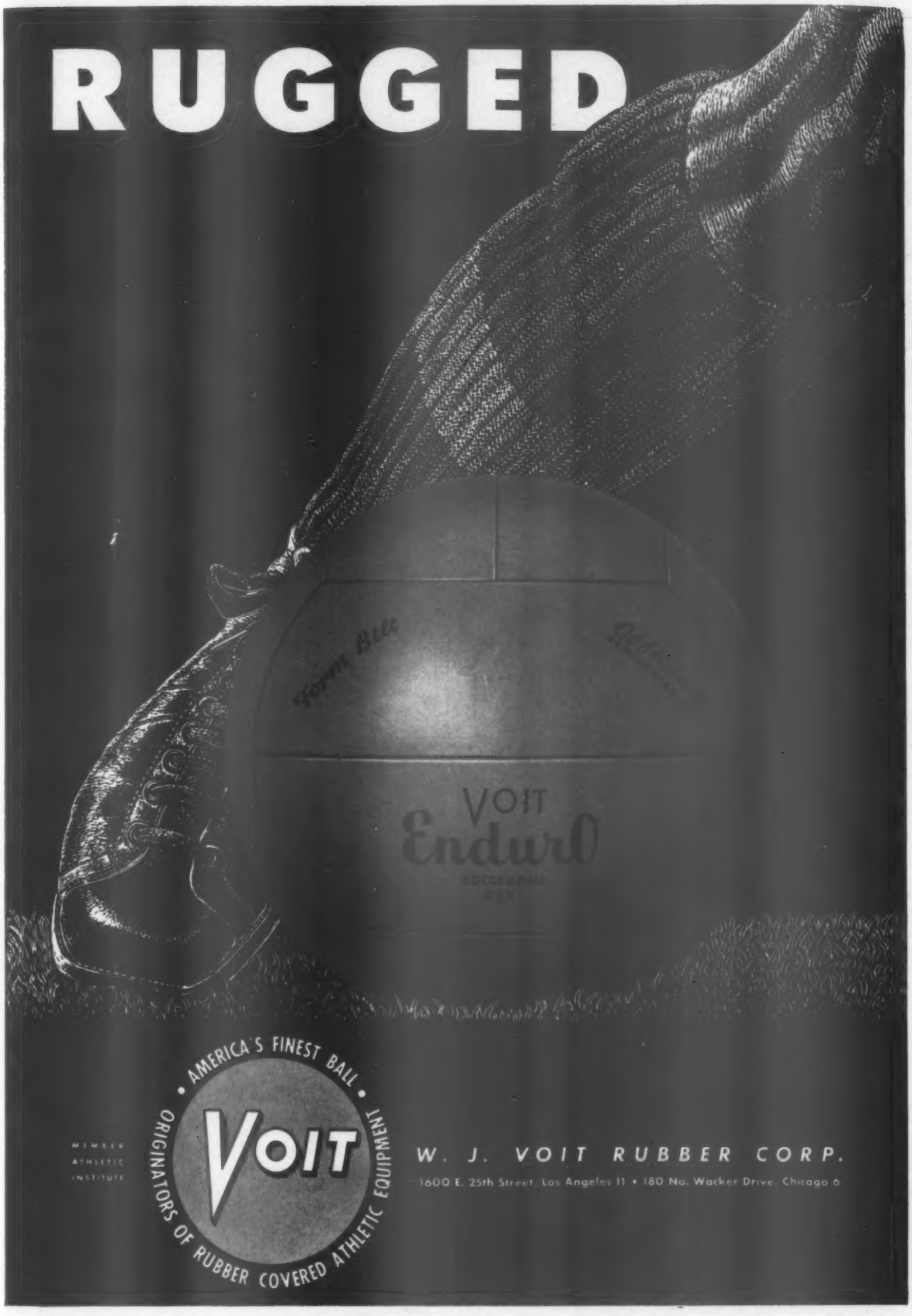
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